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The Journal

of the

Michigan State Medical Society

Published under the Direction
of The Council

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VOLUME 61
1962

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THE COVER

The trained crews and extensive equipment of Smith, Kline & French will be set up at the Providence Hospital to televise the colored closed-circuit television demonstrations and lectures to the doctors attending the 1962 Michigan Clinical Institute at the Sheraton-Cadillac Hotel, Detroit.

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B. M. Harris, M.D., Ypsilanti	1963

"nutrition...present as a modifying or complicating factor in nearly every illness or disease state"[1]

1. Youmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

cardiac diseases "Who can say, for example, whether the patient chronically ill with myocardial failure may not have a poorer myocardium because of a moderate deficiency in the vitamin B-complex? Something is known of the relationship of vitamin C to the intercellular ground substance and repair of tissues. One may speculate upon the effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic disease."[2] 2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

arthritis "It is our practice to prescribe a multiple vitamin preparation to patients with rheumatoid arthritis simply to insure nutritional adequacy . . ."[3]
3. Fernandez-Herlihy, L: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

digestive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.[4] Daily administration of therapeutic vitamins to patients with hepatitis and cirrhosis is recommended by the National Research Council.[5] 4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

degenerative diseases "Studies by Wexberg, Jolliffe and others have indicated that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, particularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of aging persons is lowered, even to the danger point, more than is the case in the average American adult."[6] 6. Overholser, W., and Fong, T.C.C. in Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

infectious diseases Infections cause a lowering of ascorbic acid levels in the plasma; and the absorption of this vitamin is reduced in diarrheal states.[7] 7. Goldsmith, G A.: Conference on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported in: Medical Science 8:772 (Dec.10) 1960.

diabetes Diabetics, like all patients on restricted diets, require an extra source of vitamins.[8] "Rigidly limiting the bread intake of the diabetic patient automatically eliminates a large amount of thiamin from the diet. . . . There is some evidence of interference with normal riboflavin utilization during catabolic episodes."[9]
8. Duncan G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

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President's Page

LEARN TODAY
APPLY TOMORROW



"The importance of continuing education has received increasing recognition in recent years, primarily because of the tremendous expansion of medical knowledge."

That statement, made recently in an editorial in the *AMA Journal*, focuses on the importance of the annual Michigan Clinical Institute.

Once again, the annual MCI program has been developed for the Michigan doctor of medicine—so he may better serve society. "Learn today and apply tomorrow" could well be the slogan for the 1962 MCI. The scientific papers will be "blocked" into segments as in the previous years; the discusion groups which proved a popular innovation last year will be expanded; and once again closed circuit color television will aid in the teaching.

As you know, the Michigan State Medical Society is unique across the nation in that it offers to the membership two major continuing education meetings each year.

This annual mid-winter postgraduate experience is only a part of the year-round continuing education activities afforded by medical organizations for its members. Fitting together in the total picture are the MSMS Annual Session, the MSMS Michigan Clinical Institute, the scientific programs of the component Medical Societies, the Clinic Days offered through MSMS by the two medical schools, the education programs of the specialty organizations, the monthly MSMS JOURNAL, and others.

The doctor who fails to take advantage of these excellent opportunities will indeed find it difficult to keep abreast of advancing research and practice gains. He owes it not only to himself but also to his patients.

That the doctor is busy in his daily practice cannot be denied, but it is essential that he fully recognize "the importance of continuing education" and participate once again in the excellent Michigan Clinical Institute. See you there.

President
Michigan State Medical Society

1962 MCI Program In "Blocks" Again



Once again, the scientific information at the Michigan Clinical Institute will be "blocked" into segments as in previous years to better save the time of the busy doctor of medicine. Not only the guest essayists will be scheduled into special-interest blocks but the discussion groups and closed-circuit color television also will follow the general block pattern.

The 1962 MCI will open Wednesday morning, February 28 with a Surgery block, followed by Trauma in the afternoon. *Wednesday will be General Practice Day.*

Thursday, March 1 will be Medicine Day with Heart featured in the morning and Internal Medicine and Cancer in the afternoon.

Friday morning, March 2 will deal with Obstetrics and Gynecology.

See the MCI program—in this number of THE JOURNAL—for full details of the program and allied activities of this stimulating refresher course.

Medical Socio-Economics Department Started

As authorized by the 1961 House of Delegates, the Michigan State Medical Society now has an operating Medical Socio-Economic Committee and Department.

The new department has been established with a trained socio-economist as research director, and with a prominent university socio-economist retained as a consultant.

The 1961 House of Delegates approved the House Ways and Means Committee report which made six recommendations. (After the 1960 House recommended the appointment of a Medical Care Study Committee to investigate this entire area of concern, the study committee did much work and presented a report to the 1961 House for its consideration.)

The six recommendations of the House of Delegates, now being implemented by The MSMS Council, include:

(1) that MSMS immediately establish a Medical Socio-Education Committee.

(2) that all component medical societies and specialty organizations create similar committees.

(3) that the MSMS Medical Society Economics Committee shall consist of a chairman and six members to serve for a term of three years.

(4) that MSMS should secure an economist.

(5) that an approximate budget of $30,000 be approved for the first year of operation.

(6) that a $5.00 increase in MSMS dues be approved to finance the project.

Name Doctor Falls Chairman

Harold F. Falls, M.D., of Ann Arbor, who served last year as chairman of the investigating Medical Care Study Committee, has been appointed as the first chairman of the Medical Socio-Economic Committee.

Named to serve on the Committee are: For three years—Chairman Falls, Sidney E. Chapin, M.D., Dearborn, and D. N. Sweeny, Jr., Detroit; For two years—F. C. Ryan, M.D., Kalamazoo, and C. J. Tupper, M.D., Ann Arbor; For one year—A. J. Day, M.D., Detroit, and D. L. Kessler, M.D., Grand Rapids. Three MSMS Councilors were appointed in an advisory capacity to serve the committee—J. J. Coury, M.D.; J. J. Lightbody, M.D.; R. J. Mason, M.D.; and O. J. McGillicuddy, M.D.

The Committee, at its first meeting, elected Doctor Tupper as vice chairman. Also at the initial meeting, the Committee recommended approval of a $29,000 budget and recommended employment of the consultant and research director. The MSMS Council concurred.

Hardwick, Campau Join Staff

Joining the MSMS staff on December 1 as medical socio-economic consultant was Clyde T. Hardwick, Ph.D., director of the University of Detroit Institute for Business Services; and as research director, Richard Campau, of Detroit.

The office for the Medical Socio-Economic Department has been established in the present two-room suite of the Michigan State Medical Society in the David Whitney House (Wayne County Medical Society), 1010 Antietam, Detroit 7, Michigan.

"One of the prime functions of the new committee will be to coordinate Medicine's socio-economic activities and strive for a total united effort by all component medical societies and specialty groups," explains Doctor Falls.

Doctor Falls has stressed that the medical socio-economic committees being established by component societies and specialty groups will be kept informed of activities of the MSMS Committee. The MSMS Committee will invite the other groups to present matters of concern to the state society committee, and in turn, the MSMS Committee might request advice, study and opinion of the component committees.

The MSMS Committee will seek to provide excellent liaison and communications between it and other medical groups.

Serves Michigan for AMA

William R. Ramsey, of the staff of the Field Service Division of the American Medical Association, has been assigned to service Michigan. He also will serve Ohio, Kentucky, Tennessee and Mississippi. Mr. Ramsey was graduated from Mt. Union College, Ohio, and received his master's degree in hospital administration from Washington University, St. Louis, Missouri. From 1953 to 1961, he was executive secretary of the King County Medical Society in Seattle, Washington.

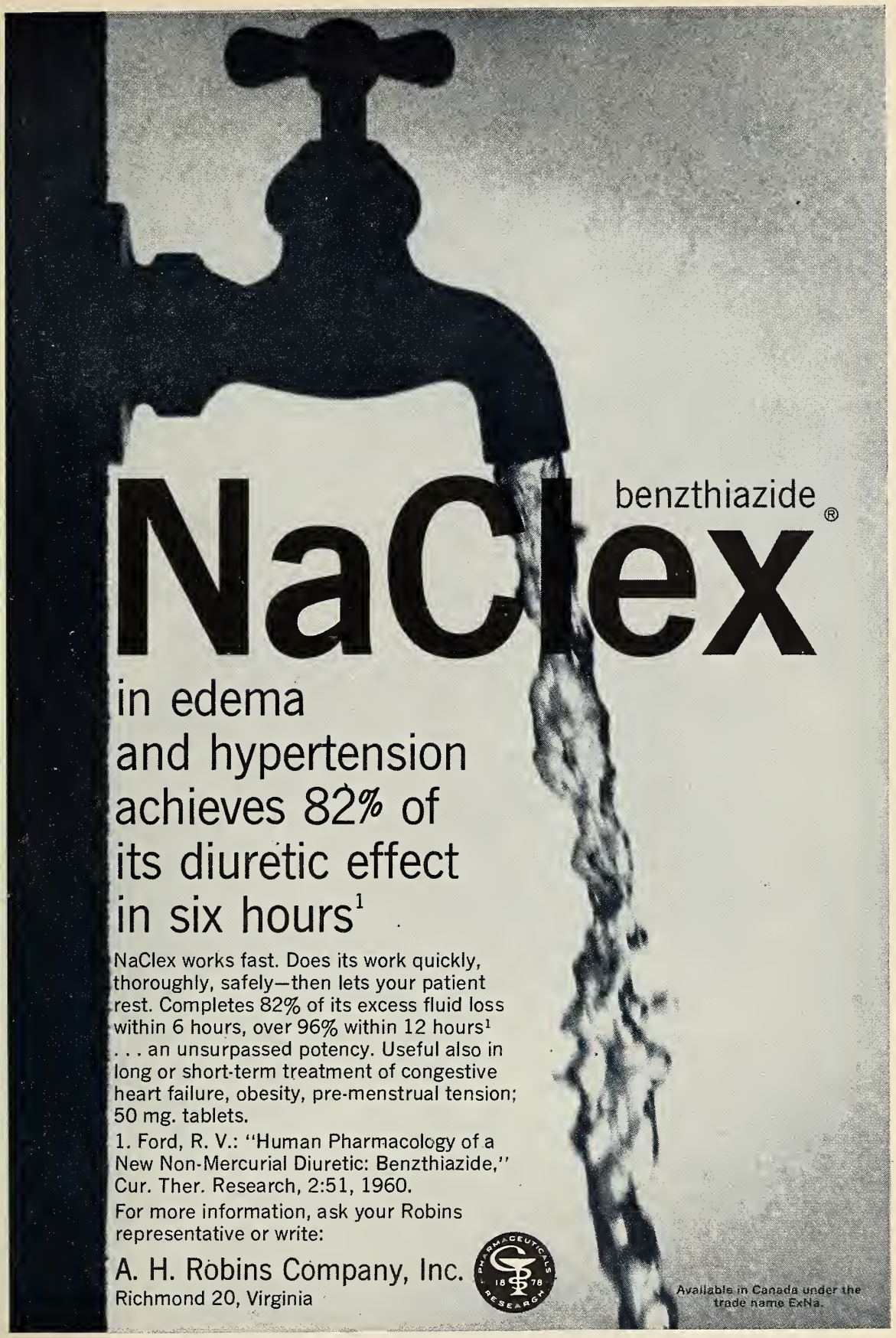
(Turn to Page 12)



GOLDEN YEARS

The coveted Michigan State Medical Society 50-Year Award was given at the 1961 Annual Session at Grand Rapids to the following men: Seated *(left to right)* Raymond S. Goux, M.D., Detroit; Howard H. Cummings, M.D., Ann Arbor, Fred L. Arner, M.D., Bellevue; Robert D. Scott, M.D., Flint; Henry J. Vandenberg, M.D., Grand Rapids; Henry R. Carstens, M.D., Birmingham. Standing *(left to right)* George R. Goering, M.D., Flint; Joseph A. Bakst, M.D., Detroit; Ansel B. Smith, M.D., Grand Rapids; Ernest W. Dales, M.D., Grand Rapids; G. Howard Southwick, M.D., Grand Rapids; LeRoy W. Hull, M.D., Detroit; and Charles J. Jentzen, M.D., Detroit.

Also receiving the award were: Wyman D. Barrett, M.D., Glen B. Carpenter, M.D., Harry F. Dibble, M.D., R. R. Goldstone, M.D., and H. Walter Reed, M.D., all of Detroit, and Buenaventura Jimenez, M.D., Ann Arbor, and Elisha S. Sevensma, M.D., Grand Rapids.


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1. Ford, R. V.: "Human Pharmacology of a New Non-Mercurial Diuretic: Benzthiazide," Cur. Ther. Research, 2:51, 1960.
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Kennedy Conference in Detroit Hears Statement by Doctor McLean

(D. W. McLean, M.D., President of the Wayne County Medical Society, made the following statement at the Kennedy Administration-sponsored conference in Detroit, November 15, at a panel discussion on "Better Opportunities for Health and Welfare." The statement is published here with the permission of Doctor McLean.)

"Mr. Chairman, Mr. Undersecretary, members of the panel, ladies and gentlemen: First, let me thank Mrs. Guiney for her kind recognition of the members of the Wayne County Medical Society who are presently participating in her program.

"I also wish to express my appreciation to those who organized this panel for extending me the opportunity of making a tour with the Honorable Undersecretary of the facilities for the care of the aged that are presently in operation in this area. On this tour we were permitted to observe first hand how the facilities are functioning. We had many interesting discussions and I am happy to report that we found many areas of agreement, the principal one being the great need for more effective communication between the Undersecretary's profession of government and our profession of medicine.

"Mr. Chairman, in the interest of such communication I especially appreciate your invitation to make this statement on behalf of the physicians of Wayne County.

"I am confident that no one questions the sincere interest of the doctors of medicine in providing the best possible health care for not only senior citizens but all the people of this state and nation.

"The Medical Profession adheres to the following major principles: First, the preservation of the highest quality of medical care, which we now enjoy and which is indisputably the finest in the world. Second, it is our desire to make that care available to all of the people in this country. We can surely all agree on this common goal. Our only difference is in the method of delivering this service.

"Doctors do not believe that the approach to health care embodied in the King-Anderson Bill will achieve either of these goals. To the contrary, we are convinced that socializing medicine even for one segment of our people, will surely lead to an inferior medical care for all. We further believe that a national compulsory health program for the aged will lead to the decline, if not the end, of private health insurance which has made such strides in recent years.

"We believe that under the King-Anderson program, the personal doctor-patient relationship which is so essential to good medicine would suffer a mortal blow. It has been said that King-Anderson Bill does not involve physicians. It does involve medical specialties. It is the "foot in the door" approach that would lead to a full blown nationalization of the medical profession.

"Wherever this has happened, there has been a deterioration in the quality of medical care and those for whom the plan was originally designed are the ones who suffer most from its inadequacy.

"When the time comes that the government picks up all the bills, the patient comes to look upon the physician as a public servant, already paid. Under these conditions the patient tends to regard his doctor as a patient-sorter and a pill dispenser. Social Security has always provided the direct payment of money which the recipient can spend as he chooses. Services should not be substituted for cash.

"Voluntary health insurance can do the job. Its growth is phenomenal. Voluntary insurance has a great future and is constantly covering more and more senior citizens.

"Michigan has been the first state to implement the Kerr-Mills program of medical aid to the needy aged. This is a new program. It has been improved this summer, only nine short months after it was originally adopted. We compliment both parties for their continuing bipartisan efforts to evaluate and improve this program. Now, before it has been given a chance to prove its value we are being pressured to accept a new, massive, compulsory program, for the whole country, which covers but a segment of the aged, and ignores many of those most in need.

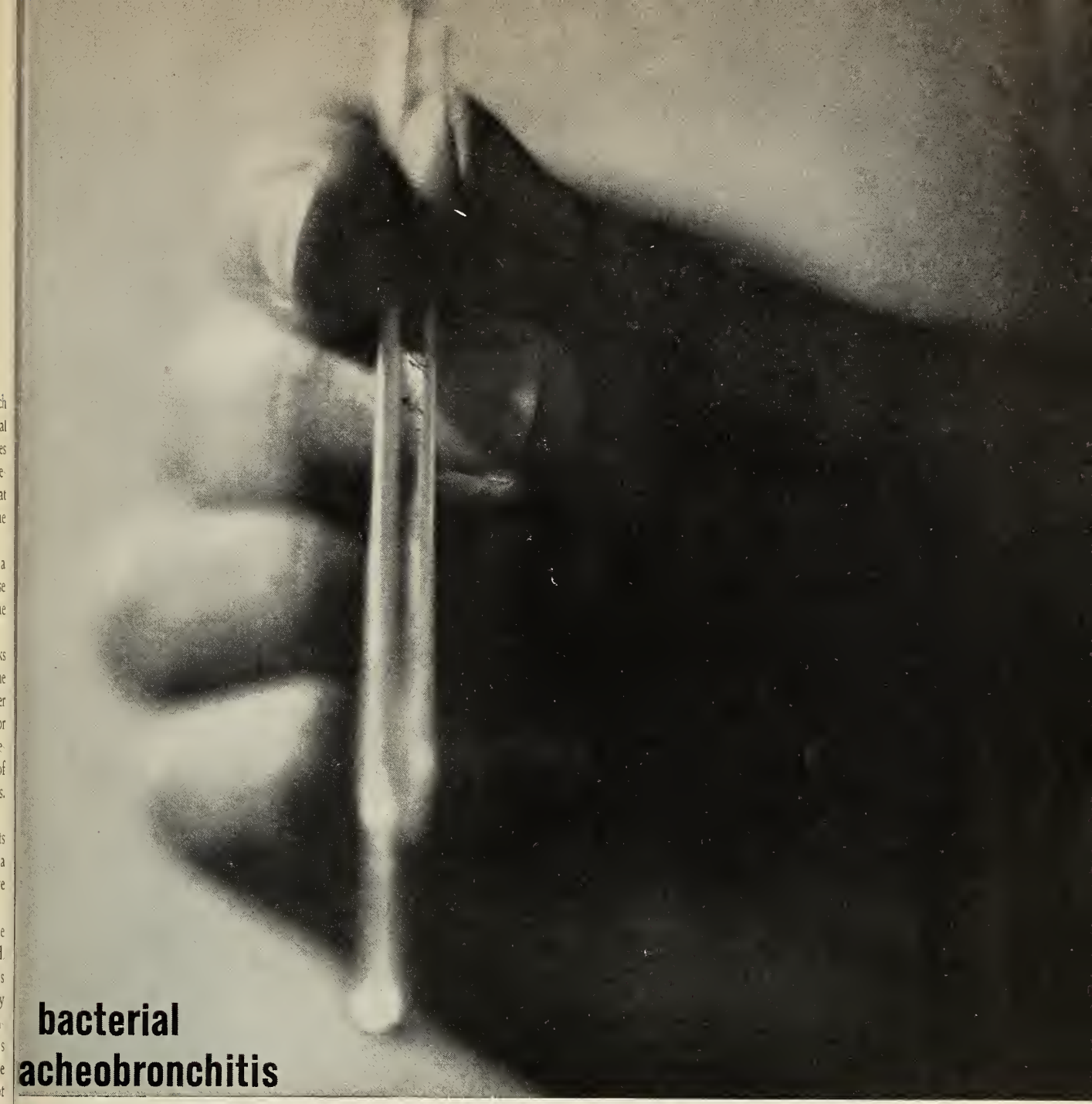
"We urge the representatives of the national administration here present to re-examine their policy in regard to Social Security as a mechanism for providing health services to older people.

"We are willing and anxious to join with you in seeking solutions to our problems; solutions which will preserve the freedom and enhance the sense of personal responsibility of our citizens."

D. W. McLean, M.D., *President*
Wayne County Medical Society

(Turn to Page 14)

Reprinted from the *Detroit Medical News*, November 27, 1961, Vol. 53, No. 30.



bacterial
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therapeutic hours

In the presence of bacterial infection, taking a culture to determine bacterial identity and sensitivity is desirable—but not always practical in terms of the time and facilities available.

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Caution: Since the use of any antibiotic may result in overgrowth of nonsusceptible organisms, constant observation of the patient is essential. If new infections appear during therapy, appropriate measures should be taken.

Total and differential blood counts should be made routinely during prolonged administration of Albamycin. The possibility of liver damage should be considered if a yellow pigment, a metabolic by-product of Albamycin, appears in the plasma. Panalba should be discontinued if allergic reactions that are not readily controlled by antihistaminic agents develop.

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HIGHLIGHTS of The Council

Meeting of November 15, 1961

In November, one hundred twenty-nine (129) items were presented to the Council under the chairmanship of O. B. McGillicuddy, M.D., Lansing. Chief in importance were:

- 1. Committee reports.
  - A. Medical Socio-Economic Committee, meeting of November 8. Chairman Falls outlined the current and long-range activities of the Committee and recommended the employment of a research director and economics consultant to begin service December 1, 1961; he presented the proposed 1962 budget for this new Department of Economics as approved by the 1961 House of Delegates. Doctor Falls also reported on the November 7 meeting in Detroit with Judge George E. Bowles and Jacques Cousin of the Governor's Commission on Prepaid Hospital Care and their request for a statement from MSMS on nineteen selected facets of the University of Michigan (McNerney) Report. The Committee report was approved with thanks.
  - B. Committee on Study of Prevention of Highway Accidents, meeting of October 5. This Committee recommended MSMS support of a uniform vehicle code, to be submitted to the 1962 Legislature, which item was referred to the MSMS Legal Affairs Committee. Approved were the Committee's recommendations that component societies secretaries be requested to submit names of county medical appeal boards for medical examination of drivers whose licenses have been suspended; publicity to physicians on "Medical Guide for Physicians in Determining Fitness to Drive a Motor Vehicle"; also request to component societies to establish traffic safety programs in cooperation with law enforcement agencies.
  - C. Ad Hoc Committee on Evaluation of U-M Study. The Committee reported its interim activity in continuing evaluation of



MEMBERS OF THE MSMS COUNCIL

Seated, front row *(left to right)*: D. Bruce Wiley, M.D., Utica, Secretary; C. I. Owen, M.D.; Otto K. Engelke, M.D., Ann Arbor; O. B. McGillicuddy, M.D., Lansing; O. J. Johnson, M.D., Bay City; J. J. Lightbody, M.D., Detroit; H. F. Falls, M.D., Ann Arbor; Wilfrid Haughey, M.D., Battle Creek.

Standing, second row *(left to right)*: D. Roemer Smith, M.D., Iron Mountain; R. V. Daugharty, M.D., Cadillac; J. J. Coury, Jr., M.D., Port Huron; W. W. Babcock, M.D., Detroit; W. C. C. Cole, Sr., M.D., Detroit; C. Allen Payne, M.D., Grand Rapids; W. A. Scott, M.D., Kalamazoo; J. R. Dehlin, M.D., Gladstone.

Standing, back row *(left to right)*: R. J. Mason, M.D., Birmingham; E. S. Oldham, M.D.; W. M. LeFevre, M.D.; H. C. Hansen, M.D.; E. E. Martmer, M.D.; William Bromme, M.D., Breckenridge; B. M. Harris, M.D., Ypsilanti.

Not present when the photo was taken at The Council meeting September 28, 1961 were William S. Carpenter, M.D., Detroit; Harold H. Hiscock, M.D., Flint; and Kenneth H. Johnson, M.D., Lansing.

the U-M Study of Hospital and Medical Economics between July 15 and the Meeting of the House of Delegates September 19, 1961.

D. Committee of Past Presidents, meeting September 27. The Committee discussed the installation ceremony for MSMS Presidents. The 1961 House of Delegates took definitive action on this matter.

E. Rheumatic Fever Control Committee, October 18. These minutes dealt entirely with the revising of the desk reference cards for rheumatic fever, and were received by The Council.

F. Legal Affairs Committee meeting of October 19: These minutes were discussed by Chairman L. A. Drolett, M.D., of Lansing, who urged that 1,000 copies of the folders outlining the MSMS legislative program for use by county medical societies and others should be procured, which recommendation was approved by The Council. Doctor Drolett also reported on the first-aid room arranged for members of the Constitutional Convention; he urged that MSMS field representatives contact component societies and legislators in their home areas immediately, which was approved by The Council. Finally, he reported on the White House Regional Conference held in Detroit, November 14-15, where Washington officials publicly discussed administrative programs including pressure for Social Security medical care of the aged.

G. MCI Program Committee meeting of October 25. These minutes constituted a progress report on selection of speakers for the 1962 Michigan Clinical Institute.

H. Maternal Health Committee, October 26. These minutes recommended that county medical societies appoint local maternal health committees; presented a progress report in the maternal mortality tissue registry and continued analysis of perinatal deaths, instruction for OB nurses in Michigan, and changes in rules and minimum standards for hospital maternity departments.

I. Venereal Disease Control Committee, November 2. These minutes dealt with need for legal measures to relieve physicians of the necessity of obtaining consent from the parent or guardian to diagnose or treat a minor for venereal disease or other contagious diseases; also report on a December 1 public hearing to be held by the Michigan Health Commissioner re proposed regulation change so laboratories would report VD cases to health officers. (See Item 9, below)

J. Occupational Health Committee, November 3. The objectives of this Committee were reviewed for further consideration at its next meeting; progress report on a plan concerning health medicine in small industry was reviewed; a proposed meeting with representatives of the State Bar of Michigan regarding workmen's compensation and other matters of mutual concern.

K. Michigan State Fair Committee, September 19. This reported on development of the MSMS exhibit at the recent state fair (which won first prize in its class). The Committee was requested to submit bids and costs for the 1962 State Fair Exhibit.

L. Tuberculosis Control Committee, meeting of March 1. These minutes were approved with thanks except an item re establishment of a Board of Health which was referred to the Legal Affairs Committee.

M. Advisory Committee to the Executive Director, meetings of September 24 and October 17. All items in this report of staff activity were approved except the sending of two MSMS representatives to confer with experts in Albany, N. Y. concerning establishment of a Michigan scientific two way radio system which was deferred.

N. Finance Committee of The Council, meeting of November 15. The monthly financial report and bills payable were approved; also question of various expenses incurred during the 1961 Annual Session were decided. Also the 1962 budgetary request of the Maternal Health Committee was presented, discussed and approved. The Council approved the report of its Finance Committee.

2. Policies of The Council. Mimeographed copies of policies of The Council adopted during the period September, 1959, through September, 1961, were distributed to members; also a list of legal opinions rendered by Lester P. Dodd from September, 1960, through September, 1961, was distributed.

3. Vice Chairman O. J. Johnson reported that an informational session for new Councilors and Officers had been conducted November 15.

4. Chairman McGillicuddy reported that the "Annual Report of the Michigan State Medical

Society" had been mailed to all MSMS members on October 31 along with an unofficial digest of the Proceedings of the 1961 House of Delegates, which reports were well received by the membership.

5. Invitation to debate the "Social Security versus the Voluntary Approach to Provision of Adequate Health Care for Aged Citizens," received from Michigan State University, was thoroughly considered. The Council adopted a motion: "That MSMS accept opportunities to present its viewpoint on medical care for the aged but that each invitation be considered on its own merits and be approved by the President and Chairman of The Council, provided that speakers are available."

6. Appointments: (a) Perry C. Gittins, M.D., Detroit, to Advisory Council of Michigan Nursing Home Association. (b) C. P. Anderson as MSMS representative to regional civil defense meeting Battle Creek, December 4-7; (c) Otto K. Engelke, M.D., Ann Arbor, O. J. Johnson, M.D., Bay City as MSMS representatives to American Medical Political Action Committee Meeting, Denver, November 26; (d) C. I. Owen, M.D., Detroit, as MSMS representative to United States Chamber of Commerce Meeting on Care of Aged, Detroit, December 4; (e) L. A. Drolett, M.D., Lansing and C. Howard Ross, M.D., Ann Arbor as MSMS representatives to AMA Conference on Care of Aged, Chicago, December 15-16; (f) George W. Slagle, M.D., Battle Creek as MSMS representative to AMA Sports Conference, Denver, November 26.

7. Recommendation re use of Salk vaccine for all routine inoculations was received from Michigan Health Commissioner A. E. Heustis, M.D., and ordered published in JMSMS.

8. AMEF. At the request of Michigan Chairman C. I. Owen, M.D., The Council authorized a special mailing to all MSMS members of a letter and enclosures urging generous contributions to the American Medical Education Foundation.

9. Reporting of positive findings of venereal disease by laboratories. This proposal by the State Health Department is the basis for a hearing on December 1 in Lansing (See Item I-H, above). The Council went on record "as opposed to the reporting by laboratories directly to the health department of so-called positive or suspicious findings of venereal disease."

10. House of Delegates Proceedings. Speaker J. J. Lightbody, M.D., of Detroit, presented an 8 page digest of actions of the 1961 MSMS House of Delegates. He announced the appointment of six committees as authorized by the House of Delegates. The Council approved the Speakers report with commendation and referred followthrough of House of Delegates instructions to the staff.

11. Secretary D. Bruce Wiley, M.D., announced that the Annual Meeting of The Council will be held in the MSMS building in East Lansing on February 1 and 2, followed by the County Secretaries-Public Relations Seminar on February 3 in Kellogg Center.

12. Legal Counsel Lester P. Dodd rendered opinion interpreting provisions of HB 576 re-notification to the Secretary of State's office of patients admitted to mental hospitals which affected their right to operate a motor vehicle; opinion that no legal or ethical impediment exists where a physician makes his usual charge to a *private patient* who receives financial assistance from one or several aid agencies; the contrary is true if the patient is not a private patient and the medical service is rendered at the request of a governmental agency with the understanding that the fee will be paid directly by the governmental agency (in which case a contract might exist between the physician and the governmental agency); opinion that consent of patient is necessary before a physician can send information to allergy insect registry; Mr. Dodd noted the 1961 House of Delegates action condemning as unethical practice the collection of, or the attempt to collect fees for services rendered by interns and residents unless such services are rendered under the direct supervision of and under the responsibility of a staff member of the hospital—Mr. Dodd stressed the legal implications that exist.

13. The report of Executive Director Wm. J. Burns, indicated staff coverage of 14 committee meetings from September 28 through November 15, with ten of these meetings being held in the new MSMS headquarters building in East Lansing. He reported on October 6-7 National Cancer Congress in Washington, D. C.; also on Second Consumer Protective Conference, Detroit, November 2, in which he participated in a panel on "Quack Remedies—Food Fads and Your Health." The annual workshop for Michigan component societies executive secretaries was held in the MSMS building on November 9 with 11 representatives of counties having executive secretaries registering. The Executive Director

(Continued on Page 19)

Highlights of The Council

(Continued from Page 16)

reported on the pilot study of medical aid to the aged being conducted by the Ingham County Medical Society (which Society was commended by The Council for undertaking this important project). Mr. Burns reported that better coordination and communication between MSMS committees is being accomplished by staff action whereby all committee minutes are presented to staff immediately after the meetings are held and thoroughly discussed with a view not only to eliminate duplication by committees but to inform all staff personnel on committees' studies.

- 14. Public Relations Counsel H. W. Brenneman's report included resume of recent activities of the Constitutional Convention; report on the successful Speakers Training Session held in the MSMS building on October 19; and a progress report on Michigan Association of the Professions.
- 15. The Council endorsed the American Medical Association's position against King-Anderson type legislation.
- 16. The Council expressed, by a rising vote, its commendation and appreciation to immediate Past-President Kenneth H. Johnson, M.D., who voiced his gratitude to members of The Council and other MSMS officers and members for their help during his year as MSMS President.
- 17. A proposed resolution re medical care of the aged was discussed and referred to Michigan's delegation to the AMA House of Delegates, to use at the 1961 Denver AMA meeting at their discretion.
- 18. Second National Congress on Prepaid Health Insurance. A report on this AMA sponsored meeting held in Chicago, October 14 and 15, presented by G. W. Slagle, M.D., of Battle Creek, was received with thanks.

Committee, Council Get Venereal Disease Report

From time to time, material will be taken from the minutes of Michigan State Medical Society Committee meetings and reported to the total MSMS membership through THE JOURNAL.

From the minutes of the Venereal Disease Control Committee:

The committee heard a report of the following statistics from the State Department of Health:

Number of Primary and Secondary Syphilis Cases

1958-59— 79 cases
1959-60—146 cases
1960-61—280 cases

Percentage of Primary and Secondary Syphilis Cases in Michigan Reported by Private Doctors, Clinics, Hospitals, and Other Institutions

Year	*Reported by M.D.'s*	*Reported by Clinics, et cetera*
1958-59	50.6%	49.4%
1959-60	45.2%	54.8%
1960-61	36.1%	63.9%

Percentage of Primary and Secondary Syphilis Cases in Wayne County Reported by Private Doctors, Clinics, Hospitals and Other Institutions

Year	*Reported by M.D.'s*	*Reported by Clinics, et cetera*
1958-59	28.6%	71.4%
1959-60	33.3%	55.7%
1960-61	15.5%	84.5%

J. A. Cowan, M.D., of the Michigan Department of Health told the Venereal Disease Committee that the cooperation from the doctors is excellent as the State Department of Health seeks to follow up on reported cases. He said in a special study of the 211 primary and secondary syphilis cases reported in Michigan between January and August, 1961, all but five of the cases were interviewed thanks to the permission granted by private physicians; and that all but 13 of the 156 cases of early latent and latent cases had been interviewed, thanks again to the cooperation of the private physicians.

Michigan Medical Meetings and Clinic Days

January 19-20—Symposium on Blood, Wayne County Medical Society.

January 25-26—Michigan Society of Gerontology, Occidental Hotel, Muskegon.

February 3—**MSMS County Secretaries-Public Relations Seminar,** Kellogg Center, Michigan State University, East Lansing.

February 9-10—Congress of the Professions, Kellogg Center, Michigan State University, East Lansing.

February 10—Michigan Heart Day, Statler Hotel, Detroit.

February 28-March 1, 2—**Michigan Clinical Institute,** at Sheraton-Cadillac, Detroit.

March 5-6-7—American College of Surgeons Sectional Meeting, at Sheraton Cadillac Hotel, Detroit.

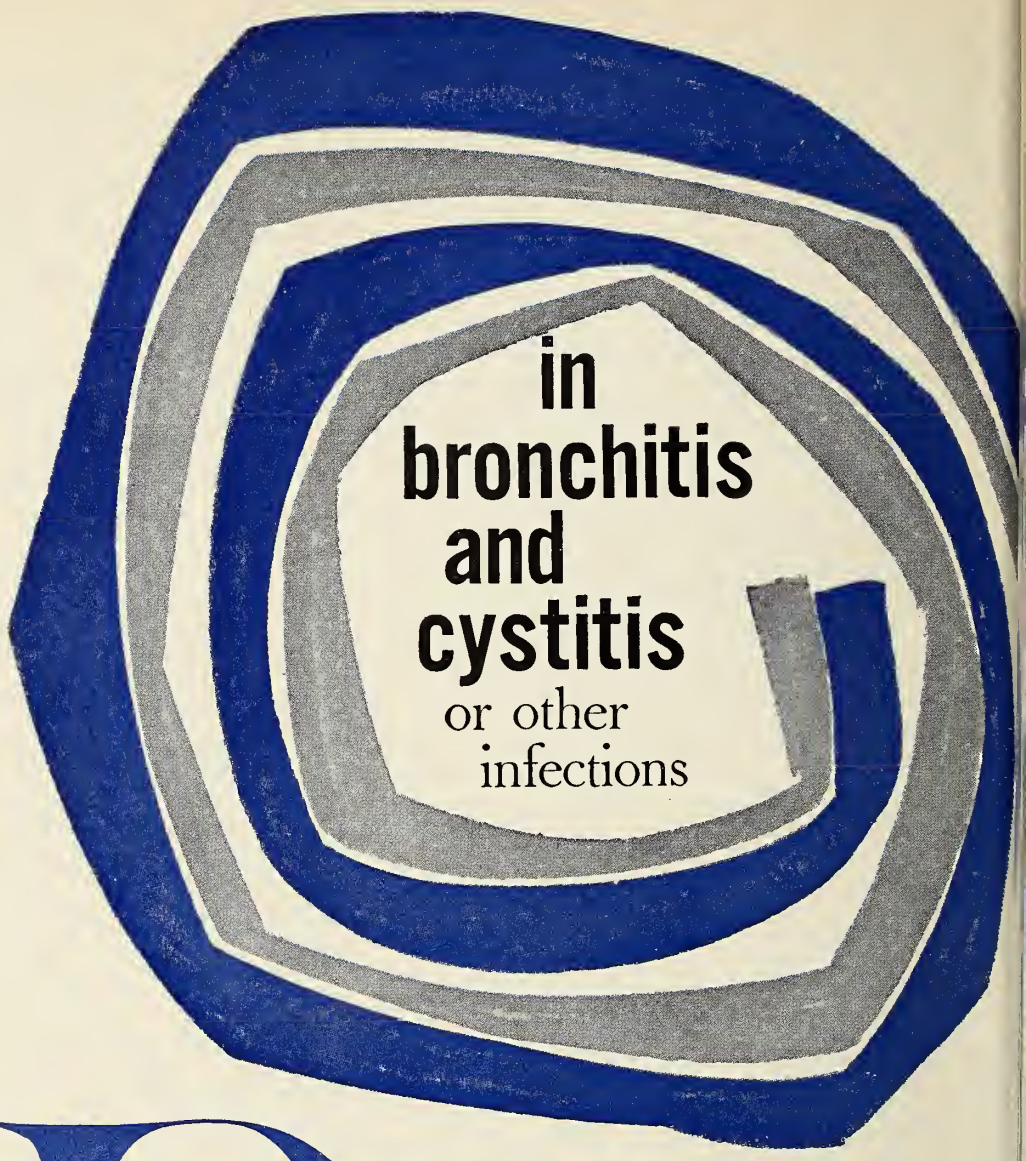
April 10-11-12—American Industrial Health Conference, at Pick-Congress Hotel, Chicago.

May 2—Wayne State University Clinic Day and Alumni Reunion, Detroit.

May 3—Ingham County Spring Clinic, Lansing.

May 10-11-12—Student AMA, Mayflower Hotel, Washington, D. C.

(Turn to Page 22)



DECLO antibiotic therapy w

CAPSULES, 150 mg., 75 mg. *Dosage:* Average infections—150 mg. four times daily. Severe infections—Initial dose of 300 mg., then 150 mg. every six hours.

PEDIATRIC DROPS, 60 mg./cc. in 10 cc. bottle with calibrated, plastic dropper. *Dosage:* 1 to 2 drops (3 to 6 mg.) per pound body weight per day—divided into four doses.

SYRUP, 75 mg./5 cc. teaspoonful (cherry-flavored). *Dosage:* 3 to 6 mg. per pound body weight per day—divided into four doses.

PRECAUTIONS—As with other antibiotics, DECLOM occasionally give rise to glossitis, stomatitis, proctitis diarrhea, vaginitis or dermatitis. A photodynamic re sunlight has been observed in a few patients on DEC Although reversible by discontinuing therapy, patien avoid exposure to intense sunlight. If adverse reactio syncrasy occurs, discontinue medication.

Overgrowth of nonsusceptible organisms is a possib DECLOMYCIN, as with other antibiotics, and demands patient be kept under constant observation.

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added measure of protection

MYCIN®

DEMETHYLCHLORTETRACYCLINE LEDERLE

gainst relapse—up to 6 days' activity on 4 days' dosage

gainst secondary infection—sustained high activity levels

gainst "problem" pathogens—positive broad-spectrum antibiosis

Robert E. Rice, M.D., Alternate Delegate to the AMA



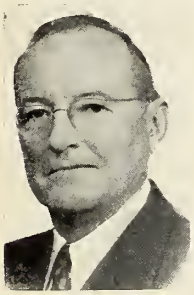
ROBERT E. RICE, M.D.

Robert E. Rice, who was recently elected alternate delegate to the AMA, is a member of the American Medical Association, has been a delegate to the Michigan State Medical Society for nine years, and served for five years as Secretary to the Ionia Montcalm County Medical Society. He is President of the Michigan Association of General Practitioners, and a member of the American Association of General Practitioners. He is Chief Medical Examiner of Montcalm County and is on the Hospital Staff of United Memorial Hospital, in Greenville.

He is active in many civic affairs, being medical chairman of the American Cancer Society, Montcalm County Unit, and is on the State Executive Committee of the Michigan Division of the American Cancer Society. He is on the Board of Directors of the Chamber of Commerce, is a committeeman for Boy Scouts and Girl Scouts, and is Past President and Zone Chairman of the Lions Club.

Doctor Wickliffe Moves West to Join Sons

T. P. Wickliffe, M.D., long-time resident of Calumet and vice chairman of The Michigan State Medical Society Council until he resigned in September, is now in Escondido, California.



T. P. WICKLIFFE, M.D.

His new job in the Golden State calls for replacement of a physician for a year, after which he and his two doctor sons will unite with two other physicians in establishing a new clinic in Escondido.

Dr. Donovan Wickliffe, a general surgeon, and Dr. Robert Wickliffe, an eye specialist, will then have the opportunity of practicing with their father as a triumvirate for the first time.

A native of Wickliffe, Kentucky, the senior Dr. Wickliffe practiced for six years in medicine and surgery in Lebanon, Kentucky, after completing his medical schooling. He came to Lake Linden in 1924 to accept a position with the Calumet and Hecla Mines medical department. He spent 20 years with Calumet and Hecla Mines before setting up his own private practice in 1945.

Dr. Wickliffe is past president of the Houghton County Medical Society and of the Upper Peninsula Medical Society. He represented the county as a delegate at Michigan State Society meetings for 10 years and was Counselor of the 13th Councilor District of the Michigan State Medical Society for seven years.

Rates Doctor Reveno's Book Full of Pearls

An excellent piece of writing appeared recently in *Medical News* when John S. De Tar, M.D., of Milan, described another Michigan physician author. Doctor De Tar, in his regular *Medical News* column, "Family Practice," wrote about the most recent "Maxims" of William S. Reveno, M.D., Detroit. The following are only a few of the comments:



WM. S. REVENO M.D.

"Can you recall, back in your undergraduate days, when you were taking notes at jet speed, how you printed some phrases in bold letters, then underlined them, then memorized them? These were the real pearls that dropped from the lips of our favorite professors.

"The pearls are still dropping. Trouble is, most family physicians are so occupied with other people's affairs that we don't have time to go pearl hunting any more.

"A couple of months ago William S. Reveno, M.D., Detroit, associate professor of clinical medicine, Wayne State University College of Medicine, devotee of the short answer to the complicated problem, provided an easy out for the pearl hunter in his little 4½ by 6-inch volume called '711 Medical Maxims.' Harry L. Arnold, Sr., M.D., Honolulu, calls it 'the best whodunit' in medical literature.

"The benefits of Doctor Reveno's hobby devolve not just upon his patients and his students, but upon all family physicians facing daily the same problems of diagnosis and therapy on which he writes.

"Ten years ago the first '711 Medical Maxims' was presented to the profession. I kept it on my bedstand for two years, and threw it into the brief case for airport reading. The later the plane, the greater the dividend. The second edition by the same name will be used in the same way. Any family physician who adsorbs two of Dr. Reveno's maxims a day is certain to be a better doctor."

(A copy of "711 Medical Maxims" may be obtained from Charles C Thomas, publisher, Springfield, Illinois. Price, $3.50.)

(Turn to Page 26)

SELECTIVE TENSITROPIC

LISTICA®

lifts the facade of TENSION/ANXIETY New Listica allays tension/anxiety in as many as 89% of cases,[2-13] by selectively inhibiting impulses through internuncial pathways of the central nervous system. Whether the patient's tension/anxiety is psychosomatic or a complication of somatic disorder, Listica reduces or eliminates the excess impulsivity seen in tension/anxiety states.

maintains normal acuity Unlike many drugs, Listica does not affect unconditioned response or normal motor activity. Thus, Listica allays tension and anxiety without inducing apathy or impairing acuity; patients are able to pursue normal activities, such as driving, reading, writing, etc., without interference from drug therapy.

enhances physician-patient rapport As it removes tension/anxiety, fear and frustration, **LISTICA PROMOTES EUNOIA***—"a normal mental state." It bares the patient's true somatic condition, and facilitates diagnosis and therapy. Patients are more tractable to concomitant drug therapy, respond better, faster.

without known toxicity or contraindications Listica is safe, as well as effective. Chronic studies[14] in rats (12 months) and dogs (6 months) were free of toxic manifestations at oral dosage levels as high as 200 mg./kg./day (approximately 10 times the recommended human dosage). No macroscopic or microscopic changes in tissues, organs or blood indicative of toxicity were observed, even at doses up to 320 mg./kg. In humans, there have been no adverse blood, urine or cardiac changes; liver profiles were negative, and jaundice has not been noted.

without serious side effects or habituation During three and one-half years of clinical study in 1,759 patients,[2-13] Listica has produced no serious side effects. Less than 4% of patients experienced any side effects, and these were invariably minor and transient. Most frequent (38 cases) was mild drowsiness, which disappeared after the first few days of Listica therapy. Habituation, cumulative effects, or withdrawal symptoms have not been noted, even in patients taking Listica as long as two years.

with convenient dosage and availability One Listica tablet, q.i.d., is the recommended dosage. Listica is supplied in bottles of 50 tablets on prescription only, by pharmacies everywhere. Each tablet contains 200 mg. of Hydroxyphenamate, Armour.

References:

[1]Bastian, J. W.: Classification of CNS Drugs by a Mouse Screening Battery. To be published in Intern. Arch. de Pharmacodynamie; [2]Hubata, J. A., and Hecht, R. A.: Review of Clinical Use of Hydroxyphenamate (Listica) in 1,759 Patients. To be published in Clinical Medicine; [3]Taub, S. J.: Management of Anxiety in Allergic Disorders—New Approach. To be published in Psychosomatics; [4]Cahn, B.: Experience with a New Tranquilizing Agent (Hydroxyphenamate). *Ibid;* [5]Davis, O. F.: On Use of Hydroxyphenamate in Anxiety Associated with Somatic Disease. To be published; [6]Alexander, L.: Effect of Hydroxyphenamate on Conditional Psychogalvanic Reflex in Man. Supplement to Diseases of the Nervous System, Sept., 1961; [7]Cahn, B.: Effect of Hydroxyphenamate in Treatment of Mild and Moderate Anxiety States. *Ibid;* [8]Cahn, M. M., and Levy, E. J.: Use of Hydroxyphenamate (Listica) in Dermatological Therapy. *Ibid;* [9]Eisenberg, B. C.: Amelioration of Allergic Symptoms with a New Tranquilizer Drug (Listica). *Ibid;* [10]Friedman, A. P.: Pharmacological Approach to Treatment of Headache. *Ibid;* [11]Greenspan, E. B.: Use of Hydroxyphenamate in Some Forms of Cardiovascular Disease. *Ibid;* [12]Gouldman, C., Lunde, F., and Davis, J.: Clinical Trial of Hydroxyphenamate in Alcoholic Patients. *Ibid;* [13]McLaughlin, B. E., Harris, J., and Ryan, E.: Double Blind Study Involving "Listica," Chlordiazepoxide, and "Placebo" as Adjunct to Supportive Psychotherapy in Psychiatric Clinic. *Ibid;* [14]Bastian, J. W.: Pharmacology and Toxicology of Hydroxyphenamate. *Ibid;* [15]Bossinger, C. D.: Chemistry of Hydroxyphenamate. *Ibid.*

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Physicians who prefer generic names prescribe "Hydroxyphenamate, Armour."

LISTICA—Hydroxyphenamate, Armour. © 1961, A.P. CO. *Stedman's Medical Dictionary

What They Said About The 1961 Annual Session

"I should like to congratulate you on the success of the recent meeting in Grand Rapids. I've heard many complimentary commentaries about the meeting in general. Dr. Joseph Messer, the speaker for whom I was the host, was overwhelmed by the hospitality of the Medical Society and spoke of it repeatedly."

R. H. Murray, M.D.
Grand Rapids, Michigan

"Mrs. Hamilton and I enjoyed very much our visit to the meeting of the Michigan State Medical Society. We enjoyed both the scientific meeting and the exhibits. We want to thank you for the hospitality shown us and trust that we shall be able to do as much for your president at our annual meeting in May, 1962."

Edwin S. Hamilton, M.D.
President,
Illinois State Medical Society

"I thoroughly enjoyed my visit to Michigan and being a part of the Scientific Program of the 96th Annual Session in Grand Rapids."

—William S. Derrick, M.D.
Guest Essayist

"It was a great pleasure to be invited to speak to your Society, and I enjoyed meeting my many colleagues in Michigan."

—T. A. Watters, M.D.
Guest Essayist

"It was indeed a pleasure and a privilege to participate in your wonderful assembly. The spirit was excellent; all of your hosts were most gracious."

—Mitchell J. Nechtow, M.D.
Guest Essayist

"I have most pleasant memories of the ninety-sixth Annual Session at Grand Rapids. It seemed particularly well organized and a real contribution in graduate medical education."

—Angus D. McLachlin, M.D.
Guest Essayist

"It was a pleasure to meet you and attend your meeting, and an honor to appear on your program. Thank you again for the privilege and pleasure of meeting with you. Best wishes for continued success."

—H. R. Reichman, M.D.
Guest Essayist

"It seemed to me to be an exceptionally well run affair, and the audience most enthusiastic. I certainly enjoyed my part in it."

—J. Roswell Gallagher, M.D.
Guest Essayist

"It was a pleasure to attend the 96th Annual Session of your Society and a privilege to participate in the scientific program."

—Clarence V. Hodges, M.D.
Guest Essayist

"I enjoyed my visit back to Michigan and participating in the meeting very much. Thank you for the opportunity to participate in your great meeting.

—Ivan C. Berlien, M.D.
Guest Essayist

"It was a pleasure to address the Assembly of the Michigan State Medical Society on Thursday, September 28, on the subject of 'Use and Abuse of Antibiotics in Surgical Patients.' I appreciated particularly the kindness and hospitality extended by the Association through my ubiquitous host."

—W. A. Altemeier, M.D.
Guest Essayist

"May I extend to you and the Michigan State Medical Society my sincere thanks for the unusual hospitality afforded me during my attendance at your Annual Session last week. I am sure that all of the speakers share my appreciation for the careful planning and thoughtfulness which were so evident during our visit in Grand Rapids. Your Annual Session was certainly one of the finest meetings I have attended. Again, my thanks for the opportunity to address your Society."

—Joseph V. Messer, M.D.
Guest Essayist

"The three presentations seemed to be well received. I especially appreciated the opportunity of visiting with the members of your Society, and felt that your meeting was especially well organized. My ubiquitous host proved to be most gracious, and I especially appreciated the opportunity of meeting him and his family."

—Gwilyn S. Lodwick, M.D.
Guest Essayist

"I have begun to regard myself as an 'Old Pro' as a guest at these State Medical meetings, for this is my sixth or seventh. I must say that the Michigan State Medical Society meeting was far and away the best organized and the most delightful experience of them all."

—John R. Haserick, M.D.
Guest Essayist

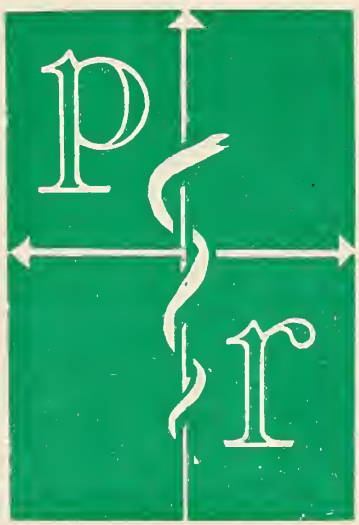
"It was a pleasure to participate in the program of your Michigan State Medical Society. I thoroughly enjoyed my trip to Grand Rapids. It provided an excellent opportunity to become acquainted with Ophthalmology in Grand Rapids and to renew my past acquaintance with that city."

—Bradley R. Straatsma, M.D.
Guest Essayist

"Are We Fighting a Battle We Can Win?"

By The Rev. Robert Varley, Th.D., *Rector Salisbury Parish, Salisbury, Maryland*

(Delivered at the American Medical Association Institute, Thursday, August 31, 1961, Drake Hotel, Chicago, Illinois)



"Are we fighting a battle we can win?"

All of us here are products of our age. Ours is an age with many faces. Ours is an age conceived in the dying decades of the industrial revolution; an age born in the tumultuous decades of scientific striving; and an age left to mature in the decades of a time whose character has not yet been determined. There is one thing we can say for certain about these decades—these have been and still are decades in which men who have gone to battle will still go to battle. And only as men of conviction fight can a victory ever be won. When men of conviction cease to fight, true freedom will perish from human society—perish a victim of the virus of apathy.

The battle grounds of our times have been as various as the men and women who waged the wars. The factory floors of England and America were, and still are, the battle grounds for the economic warfare wherein the contestants skirmish for men's minds.

Perhaps the lines of battle are more closely drawn in the halls of education than anywhere else in our society. Our century has seen the educational processes of our land become the spawning ground for the fuzzy thinking of idealistic idiots who can find security only by submerging the ceaseless striving of the individual intelligence in the swamp of socialistic scheming. All too often, socialistic planners wearing the honored habit of academic achievement hand down magnificent manifestoes for human living which are not only removed from reality, but are truly insensitive to the basic concept of life—a concept given by God in the very act of creation—the freedom to choose. To be free, a man must be free to choose! Man must live between the pull of heaven and the tug of hell. But he must be free to choose. Any system, any scheme, any plan which violates this dogma of dignity carries within it the seed of its own destruction.

It must not be overlooked that this battle is also being waged in the sanctuaries of faith also. Religion is life, and as such, organized religion reflects in its thinking today those who strive to preserve individual dignity and integrity—the pull of heaven; and those who seek safety in the cult of conformity—the tug of hell.

These battles are but symptoms of a cultural cancer creeping ceaselessly over all men who live lives in this age of tumult.

I believe that you here present must first realize that because you are on the battlefield does not mean that you started the war. The medical world has always been the prime target for pseudo-social planners, not because you are rich and powerful, as some would have the world believe, but rather because your training and professional insight represent the greatest threat to these idiot ideologists. Perhaps you do not realize it, but unless the medical world can be made the servant of socialism, the adversaries of individuality have lost the war before it really gets going.

Have you ever stopped to think what has made modern medicine in America great? The answer is your blessing and your curse. Modern medicine has molded the most fiercely independent profession in the world. Modern medicine rests upon the foundation of individual integrity, individual enterprise, individual initiative, and quite often independent action.

Now is not the time for fierce independence. True maturity is found in a state of dependent-independence. The battle which rages around us not the AMA's battle. It is our battle. It is not the physician fighting to maintain his independence. It isn't even the American physician fighting to preserve his patient's right to choose. The magnitude of the struggle is far more than this. Literally, we are engaged in a common battle against a common enemy. If we allow the world to view this as "the doctor's fight," then we will succumb to the oldest military strategy in the world—divide and conquer. We are in a fight, and we are in it together to win!

Can we win? If victory is our goal, let history be our tutor! The pages of history are filled with the record of battles won and battles lost. In the lessons lie the answers we seek. Briefly, every man who has waged a war against an enemy—be that enemy a legion of men, a virus of destruction, or a philosophy of evil—has triumphed by wisely using four words—situation, problem, strategy, and tactic.

The present situation is well known; the cult of collectivism seeks through legislative action to socialize American medicine.

The underlying problem can be briefly stated—pseudo-social planners in our day are attempting to erect a socialistic super-structure on a democratic base. To fully understand the depth and magnitude of this problem, you must leave the atmosphere of your profession, and through exposure to the voices of other disciplines and professions, see how widespread the problem is. I know how busy the American Physician is. I know that he hardly has time to read the professional journals which are part of his tools. But I must say that only as we lift our eyes from the limited horizon of our own profession and view the problem in its complexity can we ever wage a full scale war against our common enemy. You are living in and dealing with "an age of anxiety," "a lonely crowd," "the organization man," "the self in pilgrimage," and also "the cocktail hour." These are the voices of our time crying out to be heard by all men with a common concern.

To analyze the current situation and to diagnose the underlying problem leads inevitably to the third stage of battle—strategy. Once we leave our professional isolation, we become aware of allies in battle also. Professor William James once said "that those who are concerned with making the world better are the best start." A true strategist wants not only to know the strength of his enemy, he wants also to know the strength of his allies!

The American physician, and more particularly the American Medical Association, must reach out with as much vigor and determination for the help of its allies as it does to determine its detractors.

Your strategy must include allied aid. Also your strategy must include means whereby the ranks of medicine itself can present a united front. All need not agree in philosophy. But all must agree in purpose. Currently, medicine is divided not only into specialties, but particularly in its approach. There are those in government medicine; those in academic medicine; those in research; those in hospitals, as well as those in "secular medicine." "A House divided cannot stand." Your strategy must include union within as well as without!

Adequate planning can come only in the light of all available resources!

Finally, the tactics of victory are found in an assault on reality! This is a real battle against real forces. We cannot afford to joust with the windmills of fantasy. A tactical invasion must be made upon the thinking of all our citizenry. The forces of folly have been doing this for decades. With platitude and promise, the minds of men have been swayed from the pathway of human enterprise. Ultimately as in the life of Jesus Christ Himself, you must first lead those whom you seek to serve. True leadership seeks to serve. The false leader feathers his nest with the dollars he seeks to deny those who by the stint of hard work would earn in honesty.

Is it wrong to expect the physician, the teacher, the clergyman to return to his role of guide and friend? When the mantle of leadership worn with dignity in generations past is allowed to fall from our shoulders, there are those forces all too willing to assume it and abuse it.

The field of our battle is not in the labyrinth of legislature, not in halls of academic chambers, nor yet in committees of caucus. Our field of battle is in the homes where our people live, in the schools where they learn, in the offices and factories where they work, and in the churches where they pray. You cannot make a tactical assault on the forces against you unless you are in the field where these forces are at work! As the physician heals on the bed where the sick lie, let medicine lead in the streets where people live.

Are we fighting a battle we can win?? Yes, we can win—win with men of good will.

With Goethe in "Faust," let us say:

> Yes, to this thought I hold with firm persistence
> The last result of wisdom stamps it true
> He only earns his freedom and existence
> Who daily conquers them anew.

Health Insurance Challenges Cited

Three problem areas in the voluntary coverage movement were cited at the 2nd National Congress of Prepaid Health Insurance, sponsored by the AMA recently in Chicago.

A panel suggested these three problems:

1. Development of realistic group coverage programs.
2. Development of realistic programs for individuals, retired persons and other segments of the public without access to group programs.
3. Solving problems inherent in the two coverage approaches of community rating and experience rating.

The Congress featured addresses by Walter J. McNerney, formerly of Michigan and now president of the national Blue Cross Association; Jerome Pollack, Detroit, Carl R. Ackerman, M.D., New York City and others.

* * *

CHAIRMAN FOR THE Congress was Robert L. Novy, M.D., Detroit, vice chairman of the sponsoring AMA Council on Medical Services.

Officially representing MSMS was George V. Slagle, M.D., Battle Creek, who was moderator of a panel on Problems of Enrollment. Ross V. Taylor, M.D., Jackson, was a member of a panel on "Expanding the Scope of Benefits." The Michigan Blue Shield representative at the meeting was Allen Cameron, M.D., Saginaw.

* * *

DR. SLAGLE REPORTED to The MSMS Council that, "it is the feeling of AMA Committee on Insurance and Prepayment that whereas the outside interests are very active in the matter of voluntary prepayment, that the Doctors of Medicine and their state associations are lackadaisical in their approach and are accepting voluntary prepayment plans as something that will be with us forever. If this attitude is maintained, we are fearful that the proper control of these things will be taken from the Doctors of Medicine and will be usurped by the private carriers, labor, and management. Even worse, it could be that government might step in sooner than we think."

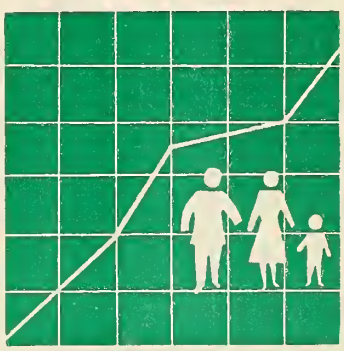
Dr. Slagle added that, "No definite problems were resolved because it was the intent of the Congress to pinpoint what these problems were to local levels for possible solution."

* * *

Hospital Payments By Insurance Reported

Men 65 years of age or older had some part of their hospital bill covered by insurance in 53 cases out of 100, according to a two-year study released today by the U. S. Public Health Service. For women in the same age range, the pattern was similar.

The study covered the period 1958-1960 and was based on household interviews by the National Health Survey. It refers to persons discharged from short-stay hospitals who reported the proportion of their hospital bill paid by some insurance plan.



For men under 65, the study points out that some part of the bill was covered by insurance in at least 71 cases out of 100, and in some age groups this total rose to 76.

The estimates refer only to personal health insurance which was intended to pay hospital bills.

* * *

Doctor Annis Suggests Lesson in Politics

When physicians get into politics and legislative activities—and they certainly should these days—they quickly learn the lessons of practical politics and practical aspects of how to work with members of legislative bodies.

The following excerpt from a special article by Edward R. Annis, M.D., in the August 28 issue of Medical Economics declares:

"We doctors are going to have to learn a lot more about the need of compromise and expediency that motivates most legislators — and finally determines most political action. Why? Because the majority of political leaders are reasonable humans, susceptible to logic and persuasion. It obviously won't work when we demand that a Senator or Representative vote the way we think. But substitute a patient educational process, and we stand a good chance of winning legislators over to our views."

* * *

Senator Contends:

"The adjournment of the first session of the 87th Congress gives me an opportunity to report to you on what has been accomplished here in Washington this year.

"If I were to try to put the 1961 session of Congress in baseball terms, I would say the score is at least 11-3 in favor of the people, with a couple of very important 'men left on base,' namely Medical Aid to the Aged and Federal Aid to Education.

"But the good thing about these 'stranded runners' is that Congress will be up to bat again in January and we will have another chance to drive them home."

—Quoted from September Report of Senator McNamara.

Social Security Tax Schedule

What is the schedule for social security tax increases over the next few years?

The tax for employe and employer is now 3 per cent. In 1962 it will go to 3⅛ per cent; 1963 to 1965, 3⅝ per cent; 1966 to 1967, 4⅛ per cent; and from 1968 on, 4⅝ per cent. The tax for self-employed is currently 4½ per cent. In 1962 it will go to 4.7 per cent; 1963 to 1965, 5.4 per cent; 1966 to 1967, 6.2 per cent; and from 1968 on, 6.9 per cent. That is the current schedule. But if and when new and larger benefits are introduced, the rate of tax increases will have to be speeded up, and markedly.

Blue Enrollments Rise

The National Association of Blue Shield Plans announces that total membership at the end of June reached 48,154,563 for a net gain of 201,558 new subscribers during the second quarter.

A portion of the growth was represented by the 32,579 enrollment of the new North Idaho District Medical Service Bureau, Inc.

Blue Shield now covers more than one-quarter of the total United States population and almost 15 per cent of the total Canadian population.

Major Medical Growth Zooms

Major Medical Insurance is the fastest growing form of health insurance in the United States, the Health Insurance Institute reports. Major Medical, which got its start a decade ago and covered some 5.2 million persons by the end of 1955, now covers an estimated 31 million people, or one of every six persons.

Last year, the number of persons covered by major medical policies and the amount of benefits paid by this type of insurance increased at a faster rate than for any other form of health insurance, said the Institute. The number of persons protected climbed 25.6 per cent, from 21,850,000 at the end of 1959 to 27,448,000 at the end of 1960, and benefits jumped 28.3 per cent, from $336 million to $431 million.

Points to Dangers of Federal Subsidies

The dangers of federal subsidies were recently outlined by Richard Wagner, president of the National Chamber of Commerce, at a meeting of the American Chamber of Commerce Executives in Rochester, New York.

Reviewing current federal subsidy plans, Mr. Wagner said that "these massive central government programs threaten the leadership of private voluntary organizations and threaten local self-government."

Also involved in the issue, he said, "is the preservation and improvement of the free private competitive enterprise system.

"The central government subsidy plan produces a small group of proponents who stand to gain from the program. But the consequent loss of local responsibility holds such a potential for loss to all business and to the public that men and women dedicated to the private enterprise system cannot support the subsidy approach."

Orthopedic Measures in Rheumatoid Arthritis Of the Knee Joints

L. Carl Sultzman, M.D.
Detroit, Michigan

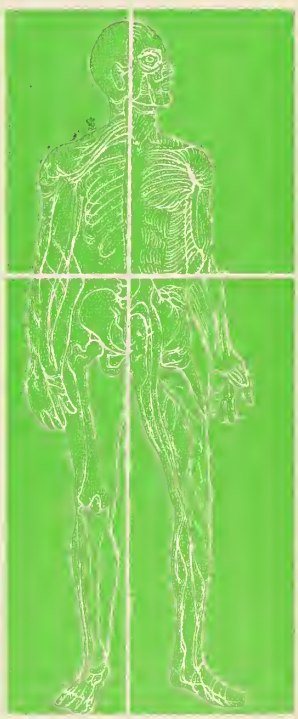
ORTHOPEDIC measures are sometimes indicated for treatment of the crippling deformities and disabilities of the knee in rheumatoid arthritis. Perhaps 5 to 10 per cent of patients have developed in the knee joints flexion contractures, exuberant synovial hypertrophy, chondromalacia of ankylosis of the patella, meniscus damage from the irregular joint surfaces, advanced destruction of the articular surface, or ankylosis—either fibrous or bony, which may be helped by appropriate surgery.

Flexion Contractures

The mechanism that produces this deformity in the knee is important to appreciate. The knee-joint synovial sac and capsule can accommodate effusion most comfortably at approximately twenty degrees of flexion since in this position it can accommodate its maximum volume. The posterior capsule is relaxed and the irritated synovial membrane placed under the least amount of tension in slight flexion. There is reflex inhibition of the quadriceps muscle and characteristic spasm of the hamstrings in the acutely inflamed joint. This is more predominant in the lateral hamstring muscle, the biceps femoris, so that continued spasm and eventual contracture of this muscle produces not only a flexion position, but also an external rotation of the tibia on the femur. For this reason, one of the very simple surgical procedures to arrest the progressive development of flexion contracture is that of doing a tenotomy of the biceps femoris. One skilled in the knowledge of anatomy in this region can do this safely under local anesthesia with little discomfort to the patient using a very slender tenotomy knife that produces only a puncture wound. No hospitalization is required and the small wound closes in two or three days requiring only a band aid for a dressing.

If the patient continues to resort to this position of maximum comfort in the flexed position, the hamstring muscles are not stretched out to their full resting length. Over a period of time, these undergo progressive adaptation to the shorter excursion, resulting in a "contracture" of the hamstring muscles. Soon after the heavy posterior capsule of the knee joint, collateral and cruciate ligaments undergo a similar adaptation. If the patient resorts to almost full-time use of a wheelchair, so that he gets into the standing position less frequently to stretch out the hamstrings, this also promotes the development of the flexion contractures. From this position, a flexion contracture of the hips also frequently accompanies the development of the knee contracture.

Early during the development of these flexion contractures, they





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can be stretched fairly easily, by splinting or by a change of position in bed. They have a "rubbery" resistance on attempted straightening of the knee in contrast to the firm "check-rein" type of resistance encountered in the late cases. Walking becomes increasingly difficult when the flexion contracture becomes more than thirty degrees. These contractures can be stretched relatively early by a few days in traction followed by wedging and casts. The quadriceps atrophy and hypotonicity must be overcome by quadriceps exercises to maintain the extended position. Bracing may be needed to maintain the extended position, if there is a tendency for recurrence or inadequate quadriceps control.



Fig. 1. Preoperative and postoperative radiographs of a patient with chondromalacia of the patella and rheumatoid arthritis. Note the spurring along the upper margin of the patella and the narrow patello-femoral cartilage space. Postoperatively, the patella is absent, the patellar tendon gliding in the trochlea of the distal femur.

Chondromalacia of the Patella

The cartilage on the posterior surface of the patella is normally nearly twice as thick as that over the articular surfaces of the tibia and fibula. Despite this, it very early undergoes deterioration in rheumatoid arthritis, giving rise to the crackling and crepitation on extension effort of the knees, usually most prominently noted on descending the stairs.

Two tests are important in the physical examination to determine whether the patella is the principal site of the discomfort. There is crepitation palpable over the patella on forced extension of the knee. With the knee in the extended position and the quadriceps relaxed, movement of the patella reproduces the pain and crepitation that the patient experiences on the stairs. Prior to carrying out any surgery for this condition, conservative measures should be utilized, such as restriction of stair climbing and other forceful extension of the knees. Hydrocortone injections of 37.5 mgm. to 50 mgm. into the knee joint are often dramatically helpful in alleviating the symptoms.

If these symptoms persist despite conservative measures, a patellectomy should be carried out. A flexion contracture, if present, should be corrected prior to surgery. The best method in our hands has been removal of the patella (Fig. 1) through a longitudinal incision in the tendon so that the continuity of the quadriceps mechanism is not interrupted. The remaining flaps are overlapped and sutured firmly, allowing quadriceps exercises to be done immediately following surgery. Previously, various types of patelloplasties have been done, or removal of the patella through an incision dividing the quadriceps mechanism transversely and then resuturing it. Four of our cases treated in

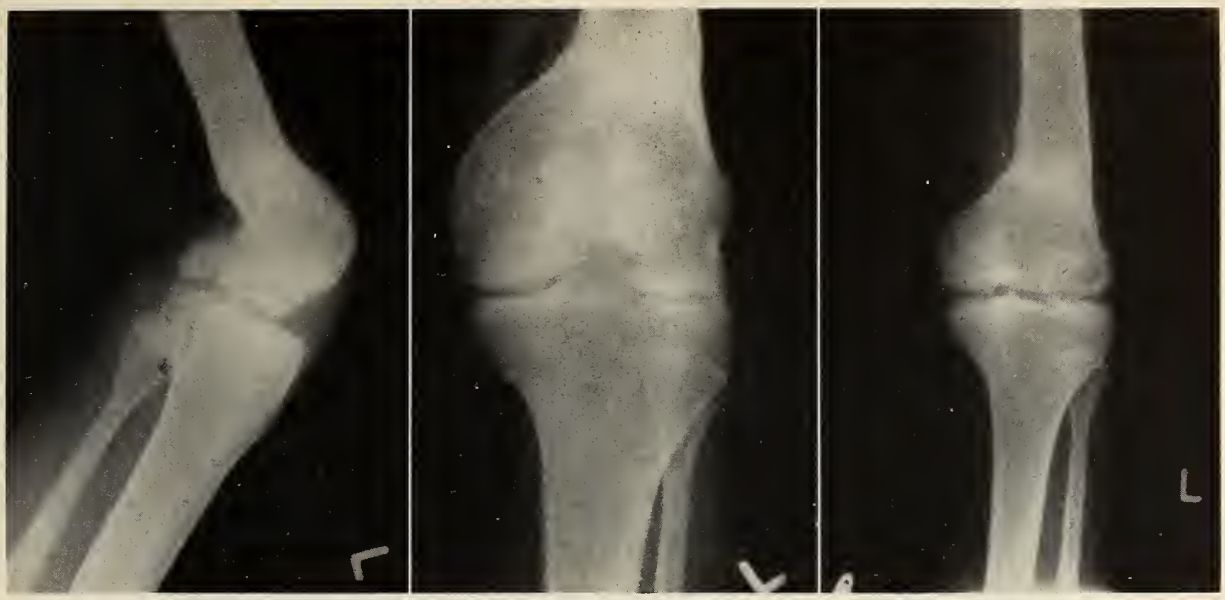


Fig. 2. Three radiographs. Previously, this patient had had a supracondylar osteotomy to correct a fixed flexion contracture. Because of the articular destruction shown in the preoperative view (*center*), a fascia lata athroplasty was done. The restored articular space is shown in the last radiograph.

this way resulted in disruption of the quadriceps patellar tendon repair, requiring subsequent surgery. Consequently, we have stopped using this transverse method.

Hyperplastic Synovitis

If the predominant feature of the rheumatoid involvement of the knee joint is an exuberant inflammatory hypertrophy and hyperplasia of the synovial membrane, this can result in interference with quadriceps control of the knee and act as a mechanical block to extension. In many cases, the articular surface appears to remain in a state of only slight deterioration and the disease to be concentrated principally in the greatly thickened synovial membrane. A synovectomy is indicated in these cases, done through a long medial para-patella incision, mobilizing the entire suprapatellar pouch and dissecting free the synovial membrane from the medial and lateral condyles of the femur and tibia. Rarely is it necessary to remove the synovium in the posterior compartment of the knee. The knee is actively mobilized as soon as postoperative pain and swelling subside. With a comprehensive postoperative physical therapy program, flexion of the knee can usually be carried to well beyond a right angle, and full extension can usually be obtained.

Advanced Destruction of the Articular Surface

Loss of the articular surface of the tibia and femur results in cancellous bone articulating on these surfaces, producing "millstone" crepitation which is usually quite painful to the patient.

This produces a "cogwheel" type of motion in the knee, permitting movement through a few degrees followed by pain and spasm, with an abrupt arrest in the motion of the knee. With relaxation, motion again begins, followed by a sudden arrest of movement from recurrence of the pain and spasm after a few degrees of movement. In these advanced cases, resection of the joint surfaces is carried out, using power instruments to resect approximately 0.5 cm. of the surface of the femur and tibia, shaping the distal femur into a hemi-cylinder with a corresponding cylindrically shaped trough on the proximal tibia. This is usually combined with a resurfacing procedure for the articular surface of the patella. Following this resection, some interpositional membrane is used on which the new joint surface will develop. Fascia lata removed from the opposite thigh is the classical material. This is fastened to the anterior margin of the tibia, pocketed back into the popliteal area, and in one piece, brought forward to cover the distal articular surface of the femur. The collateral ligaments are left intact, but the cruciate ligaments are removed. Other interpositional materials have been used recently. A sheet of clear nylon .005 inch thick was used successfully in one of our cases. In Cleveland, Ohio, Dr. Joseph E. Brown and his group report the use of "cutis" graft to line the reconstructed knee joint in a similar way. This cutis graft is obtained by removing

a split thickness graft of skin from the opposite thigh and then removing the remaining underlayer of skin. This provides the surgeon with a chamois-like material composed of collagen with which to line the joint.

Extreme marginal osteophyte formation occasionally will result in considerable joint pain by itself. This can be detected clinically by palpating along the distal medial and lateral margins of the femoral condyles,

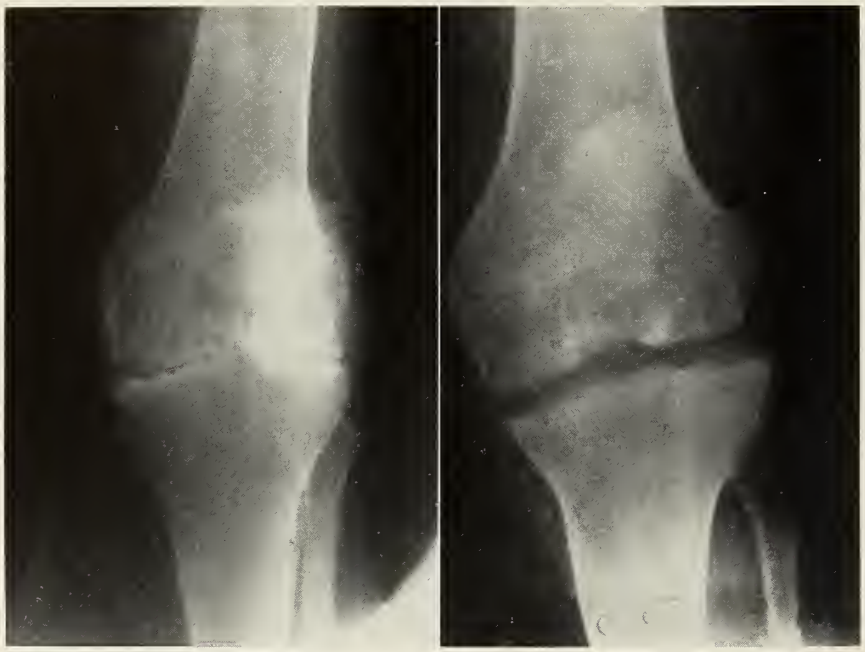


Fig. 3. Preoperative and postoperative radiographs of a housewife, aged fifty-eight, with advanced destruction of the articular surface. The view on the right reveals the restored articular space.

The split graft is then replaced to cover the defect at the donor site. Postoperatively, these patients are put in Russell's traction for three to four weeks, immobilized with a "pull-up" sling under the knee. The patient is able to pull the knee up into a flexed position while remaining in traction. Because of the loss, the resected bone in the knee is somewhat unstable for a period of eight to twelve months, requiring the use of a long leg double upright brace, usually with the knees supported toward the outside upright.

Fusion of the knee joint was the only procedure used on this type of arthritic knee for many years and still may be indicated in selected cases. An arthrodesis provides a stable pain-free knee that would permit a working man to return to his job.

Mechanical Derangements

A large group of mechanical problems occur in the rheumatoid arthritic knee. Menisci become torn by the rough articular surfaces moving over them. These require surgical removal only when the tear is extensive and blocking extension or interfering seriously with the mechanics of the knee joint.

reproducing tenderness of a significant degree. These may cause a limited painful synovitis to the overlying synovial membrane. Patients with 70 to 90 degree flexion contractures of the knee take longer to stretch out in traction. When 30 degrees is approached, the patient is taken to the operating room where a manipulation of the knee, under general anesthesia, is performed, bringing the knee into an even straighter, more extended position. In all of these extension stretchings, care is taken to carry the tibia through its normal arc around the distal end of the femur rather than merely extending it in a hinge fashion in a position of posterior subluxation.

In a long-standing, fixed flexion contracture, an operation devised by Wilson is used in which the hamstring muscles, joint capsule and ligaments of the knee joint are released to permit extension of the knee. Adaptational shortening of the nerves and vessels must be kept in mind when performing this procedure. Following the release operation, the patient is placed in traction for two to three weeks to stretch out these structures gradually.

If the flexion contracture is of long standing, quadriceps control is usually so deficient that the patient is unable to maintain this position without bracing. These braces must be maintained until sufficient control of knee extension is gained, usually six to eight months or longer. The brace of choice is a double upright long leg brace, the kind that can be unlocked for sitting flexion.

Prevention of deformities is often possible by having the patient do quadriceps exercises, stretch the knees out into full extension several times daily, and by the use of aluminum gutter splints which may be worn only at night. Use of a footstool when sitting is to be encouraged.

Free particles may occur within the knee joint from breaking off with osteophytes, portions of articular surface, et cetera. These may interfere with movement of the knee joint enough to require arthrotomy for removal.

Table I summarizes the principal abnormalities that develop in the knee joint in rheumatoid arthritis, giving measures to correct them, both conservative and operative.

TABLE I. ORTHOPEDIC MEASURES IN RHEUMATOID ARTHRITIS OF THE KNEE JOINT

Problem	Conservative	Surgery
1. Flexion contracture	Passive extension stretching, quadriceps exercises, traction, wedging casts, bracing	Tenotomy hamstrings Posterior release (Wilson operation)
2. Chondromalacia of Patella	Restrict forced extension (stairs) Intra-articular hydrocortone	Patelloplasty Patellectomy
3. Hyperplastic synovitis	Rest, intra-articular hydrocortone, aspiration	Synovectomy
4. Destruction of articular surface	Bracing, intra-articular hydrocortone	Arthroplasty Arthrodesis
5. Mechanical derangement	Quadriceps exercises, Intra-articular hydrocortone	Marginal osteophytectomy Meniscectomy

Discussion

The proper selection of these patients is of paramount importance. All attempts should be made to use conservative measures before resorting to major reconstructive surgery, particularly in the older age group.

The future holds development of new and improved techniques. Dr. Borje Walldius of Stockholm, Sweden, reported more than sixty cases of arthroplasty of the knee in which he used a plastic endoprosthesis, a complete replacement of the knee joint by a mechanical device replacing the upper end of the tibia and the distal end of the femur. His report was very optimistic and will bear watching, particularly to see whether his results are duplicated elsewhere.

Duncan McKeever of Houston, Texas, has been "reconstructing" the joints affected by rheumatoid arthritis by the use of his tibial plateau prostheses, combined with the use of a patellar prosthesis, both of which are composed of vitallium, providing one smooth surface to be articulated against its component member. His results are also very encouraging.

Rather than placing emphasis on newer techniques in surgery, increased attention should be devoted to prevention of these deformities, new methods of conservative management, and ultimately total understanding of the pathogenesis of the disease so that proper medical treatment could arrest the disease at the very outset, thus eliminating the need for the surgeon.

Summary

In summary, orthopedic methods of traction, wedging casts, resective and reconstructive surgery of the knee in advanced cases of rheumatoid arthritis have been outlined, with emphasis placed on the prevention of the deformities and the management by conservative measures insofar as possible.

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Cardiogenic Shock; Patient Survival Following Prolonged Levarterenol Therapy

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MANY physicians feel that high concentrations of levarterenol bitartrate (l-norepinephrine, Levophed) administered over a prolonged period to patients in cardiogenic shock is both ineffective and hazardous, especially with reference to its effect on renal function. It is with this in mind that the following case report is presented.

Case Report

S. R., a white man, aged forty-seven, came to the Emergency Room of Sinai Hospital of Detroit complaining of substernal pressure, aching pain in both upper extremities, dyspnea and diaphoresis of several hours duration. The patient had a past history of a myocardial infarction eight years ago, but had had no symptoms since. The blood pressure was 100/60, the pulse was 60 and thready, but the remainder of the physical examination was normal. An electrocardiogram revealed an acute posterior myocardial infarction. Anticoagulation therapy was instituted and 1,000 cc. of 5 per cent dextrose in water was started intravenously.

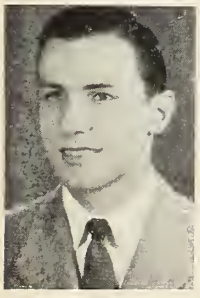
Two hours later, the patient suddenly became cold, clammy and disoriented, and no blood pressure was obtainable. Four ampules of levarterenol were added to the intravenous dextrose solution and 30 mg. of Vasoxyl (methoxamine) was given intravenously before a satisfactory blood pressure response occurred. A continuous infusion of 5 per cent dextrose in water with 4 ampules of levarterenol in 1,000 cc. was necessary to maintain an adequate blood pressure response.

The next morning, he had a "coffee ground" emesis† and again developed signs of peripheral vascular collapse with unobtainable blood pressure or pulse, followed by cessation of respiratory activity. A Bird respirator was employed, the levarterenol concentration was increased to 6 ampules, and 45 mg. of Wyamine (mephentermine) was injected (30 mg. intravenously and 15 mg. intramuscularly) before the blood pressure, pulse and respiration returned. An electrocardiogram now revealed an acute posterior myocardial infarction with anterolateral ischemia and a first degree heart block. A continuous infusion of 5 per cent dextrose in water with 6 ampules of levarterenol in 1,000 cc. was necessary to maintain a blood pressure of 100-110/60.

Two days after admission the blood pressure fell to 70/0 despite an increase in the rate of levarterenol infusion, and an additional 2 ampules of levarterenol were required to restore it to 100/60. It was necessary to continue 8 ampules of levarterenol in 1,000 cc. of 5 per cent dextrose in water for two more days. During the next five days the concentration of the levarterenol infusion was gradually decreased and finally discontinued. One hundred milligrams of Solu-Cortef (hydrocortisone succinate) was added to the intravenous solution on two occasions, the third and fifth days after admission, because the patient showed signs of increasing insensitivity to the levarterenol infusion. On each occasion, there followed an apparent increased sensitivity to the levarterenol, i.e. the blood pressure rose and it was possible to decrease the rate of infusion.

During the entire period of levarterenol therapy (ten days), the patient received a total of 85 ampules (340 mg.) of levarterenol, with a maximum concentration of 8 ampules (32 mg.) in 1,000 cc. of 5 per cent dextrose in water for two days. Throughout this time he maintained an adequate urinary output and showed no evidence of renal impairment. He did develop a superficial thrombophlebitis, first in the left calf (where the intravenous polyethylene catheter was introduced) and then in the right calf (where the catheter was subsequently transferred). This cleared promptly, however, without a tissue slough. Serial electrocardiograms revealed progressive waxing changes of a recent posterior myocardial infarction and disappearance of the first degree heart block. The patient was discharged after four weeks of hospitalization.

†In view of this and a recent history of symptoms suggestive of an ulcer, anticoagulants were discontinued.



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Discussion

A review of the literature revealed only one case of cardiogenic shock that received a higher total dose of levarterenol than did this patient. Siglin[1] reported a case of myocardial infarction with shock requiring 14 days of continuous treatment with levarterenol, using a total of 402 mg. Hall[3] reported a case of prolonged shock of undetermined origin (a patient two weeks postoperative for removal of common duct stones) which required 22 days of treatment and a total of 1,452 mg. of levarterenol base (363 ampules). He also mentions a report of a patient with bacteremic shock who received 532 mg. of levarterenol in 21 days. Heller[2] reported a case of myocardial infarction treated with levarterenol in varying concentrations for three weeks, with a maximum concentration of 7 ampules (28 mg.) per 1,000 cc.; however, the total dose for the period of treatment was not given.

Post-Infarction Shock

Hypotension often follows immediately after myocardial infarction; however, about 50 per cent of these patients recover spontaneously within several hours. The exact mechanisms of this post-infarction shock ("cardiogenic shock") are unknown, but are believed to be the (1) sudden decrease in left ventricular output resulting from the damaged myocardium and (2) neurogenic factors producing peripheral circulatory collapse.[4] The severe pain associated with myocardial infarction contributes to the shock state, and disturbances in cardiac rhythm (auricular fibrillation or ventricular tachycardia) also play a contributory role. Occasionally, mild shock can be improved by merely relieving pain or controlling the arrhythmia. When congestive heart failure is present, digitalis will increase cardiac output and help restore normal circulatory dynamics. Severe and sustained hypotension complicating myocardial infarction is correlated with a fatality rate of 80 to 90 per cent[5,6]; however, this has been reduced to 40 to 50 per cent with the advent of levarterenol.[7] The artificial maintenance of blood pressure by this means apparently permits the patient to survive a critical period until normal mechanisms for maintaining the blood pressure are resumed.

Levarterenol Administration

If severe cardiogenic shock has existed for one to three hours in spite of oxygen and morphine, levarterenol should be instituted without further delay.[2] It is administered as a continuous intravenous infusion, preferably using a polyethylene catheter to minimize the dangers of phlebitis or subcutaneous extravasation. When given intravenously, the onset of action is almost immediate, as is the disappearance of its effect when it is discontinued. The concentration initially should be one ampule (4 cc.) in 1,000 cc. of 5 per cent dextrose in water, given at a rate adjusted to maintain a systolic blood pressure between 100 and 110 mm. of mercury. If 60 drops or more per minute are necessary to maintain this blood pressure, another ampule should be added to minimize the quantity of intravenous fluids administered. There should be no delay in reaching the effective concentration, i.e., that concentration necessary for a satisfactory blood pressure response.

All patients on levarterenol therapy should have a nurse constantly present to observe the blood pressure frequently and maintain the desired level by "titrating" the concentration and/or rate of infusion. If heart failure is present, the rate of infusion should be decreased by increasing the concentration of levarterenol. When it is determined that the blood pressure can be maintained without levarterenol, the infusion should be stopped and replaced with 5 per cent dextrose in water for the next 12 to 24 hours, so levarterenol can be readministered immediately if the blood pressure drops again. A levarterenol infusion should not be terminated abruptly; instead, its concentration should be reduced gradually over a variable period of time depending upon when the blood pressure is maintained without it.[2]

Pharmacological Effects of Levarterenol

The most important effects of levarterenol on the cardiovascular system are[8]: (1) constriction of all arteries, arterioles, capillaries, venules and veins with the exception of the coronary circulation, (2) increase in the systolic, diastolic and mean blood pressure, (3) dilatation of the coronary vessels and increase in the coronary blood flow (Berne[9] believes that levarterenol induces a hypoxic state in the myocardium which is responsible for its coronary vasodilator effect.), (4) increase in the force of cardiac contraction and stroke volume, (5) decrease in the heart rate, (6) no change or slight decrease in the cardiac output, (7) increased irritability of the heart, with onset of arrhythmias at very high concentrations,* and (8) increased mean arterial, capillary and venous pressures in the pulmonary circuit.

*It is believed that, in clinical doses, levarterenol is likely to have only a slight irritant effect on the myocardium. Since arrhythmias are so general in cardiogenic shock, it is often difficult to decide whether levarterenol is really the irritant agent.

Levarterenol and Renal Function

Studies have shown that levarterenol produces a decrease in renal plasma flow and glomerular filtration rate, and an increase in filtration fraction secondary to arteriolar constriction.[2,10] Since shock produces renal ischemia, the added insult of levarterenol causing further vasospasm would produce a maximal degree of ischemia. However, investigations have suggested that while levarterenol does increase renal vascular resistance and depress renal blood flow in a normotensive patient, it actually increases renal blood flow when given to a patient in shock.[11] This ambivalent action of levarterenol is believed to result from a differential vasoconstriction within the kidneys in contrast to the remainder of the circulatory bed. The elevation in blood pressure incident to the administration of levarterenol to patients in shock increases general peripheral vascular resistance, but the lesser renal vasoconstrictor effect permits an increased renal blood flow, glomerular filtration rate, and urine output. This suggests that levarterenol may actually improve renal function in shock.

Levarterenol's Effect on Cerebral Circulation

In a normotensive patient, levarterenol reduces cerebral blood flow despite the marked increase in blood pressure. If it also did this in shock, its use would be contraindicated, since further reduction of cerebral circulation in these patients is dangerous. There is evidence, however, that cerebral blood flow is actually increased by levarterenol administration in shock.[7] Clinically, there is a striking parallelism between the state of consciousness and the level of arterial blood pressure during levarterenol treatment. Since it has no direct stimulating effect on the central nervous system, it must be assumed that improvement in sensorium coincident with increased blood pressure from levarterenol administration is a result of increased cerebral blood flow and oxygen supply.

Levarterenol Therapy in Shock With Congestive Heart Failure

The increase in arterial, capillary and venous pressures in the pulmonary circuit following administration of levarterenol to normotensive subjects raises the possibility of production or aggravation of congestive heart failure in patients with myocardial infarction. Clinically, however, no increase in cardiac decompensation is seen when cardiogenic shock is treated with levarterenol. Indeed, pulmonary edema occasionally clears with the use of levarterenol.[12] Therefore, the presence of congestive heart failure is not a contraindication to its use.

Levarterenol Potentiation

Many investigators have reported that steroids intensify the pressor response during levarterenol administration, especially if the subject has become insensitive to it following prolonged administration. Studies have shown that the steroids restore normal reactivity of the blood vessels to both endogenous and exogenous norepinephrine.[10] Small et al[13] studied the effects of levarterenol in adrenalectomized dogs before and after administration of steroids and concluded that levarterenol had a significant pressor action after adrenalectomy which was not potentiated by exogenous steroids. However, hypotension was not present and may account for their results.

Burn and Rand[14] have performed studies which suggest that during an infusion of levarterenol the blood vessels become increasingly insensitive to its pressor action. The blood vessels apparently take it up and hold it in some kind of store, leaving few receptors free on which levarterenol present in the blood stream can act. They have shown that ephedrine and drugs that act in a similar manner have the ability to release the levarterenol from its store in the blood vessel wall. This suggests that if, following prolonged treatment with levarterenol, the pressor response becomes ineffective, pressor amines which act in a manner similar to ephedrine, such as Methedrine (methamphetamine), Mephine (N-methyl phenyl tertiary butylamine) and Vonedrine (phenyl propyl methylamine) should be utilized.

Complications of Levarterenol Therapy

The two common complications of levarterenol therapy are phlebitis and subcutaneous extravasation producing tissue slough. The use of a polyethylene catheter minimizes these complications; nevertheless, they still occur following prolonged treatment with high concentrations. The most effective method of preventing tissue necrosis and slough following subcutaneous extravasation with levarterenol is to infiltrate the involved area with 5 to 10 mg. of Regitine (phentolamine) diluted in 10 to 20 cc. of distilled water.

Recent work[15] has indicated that 5 to 10 mg. of Regitine may be added directly to the infusion of levarterenol and 5 per cent dextrose in water without producing any demonstrable drop in blood pressure, yet at the same time preventing tissue necrosis if the infusion should infiltrate subcutaneously, i.e. it an-

tagonizes the local vasoconstrictor action but not the systemic pressor effect of levarterenol. The suggestion is made that it might be well to adopt the mixture of levarterenol and Regitine as a routine procedure when using levarterenol in the treatment of shock.

Summary and Conclusion

The purpose of this paper is to report a case of shock following myocardial infarction which was successfully treated with high concentrations of levarterenol for ten days. The etiology of post-infarction shock has been discussed and the method of administration, pharmacology, potentiation and side effects of levarterenol reviewed.

It has been our aim to clarify some of the misconceptions regarding the use of levarterenol as a pressor agent, and to encourage a more vigorous and enthusiastic approach to levarterenol therapy for cardiogenic shock with the hope that a higher percentage of patients will be salvaged.

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Carcinoma of the Colon Complicating Chronic Ulcerative Colitis

An increased frequency of cancer of the colon and rectum in patients suffering from chronic ulcerative colitis has been reported by several authors. Sloan, Bargen and Gage found a 3.3 per cent incidence of carcinoma in 2000 cases, and Gleckler and Brown noted an incidence of 3.8 per cent carcinoma in 316 patients. Several writers believe that carcinoma of the colon and rectum occurs from 50 to 300 times more commonly in chronic ulcerative colitis patients than in the general population. The incidence appears to be highest in those who develop ulcerative colitis before the age of 20, and several deaths have been recorded in children under 15 years of age. The interval between the onset of the colitis and the development of carcinoma usually is more than 10 years. Carcinoma frequently appears at a time when the patient believes he has overcome the colitis. The prognosis of carcinoma of the colon and rectum complicating ulcerative colitis is extremely poor.

In the decade 1950-60, a total of 452 cases of chronic ulcerative colitis were admitted to the Henry Ford Hospital. Of these, six (1.1 per cent) were found to have a complicating carcinoma. The average duration of colitis in these six patients was 9.3 years, and the average age of recognition of the carcinoma 41.1 years. Five of these patients underwent colectomy, three of whom are still alive and clinically free of evidence of malignancy. The incidence of carcinoma complication in 50 total colectomies during this period was 10.0 per cent.—Summary of paper by Laurence S. Fallis, M.D., and David H. Blinkhorn, M.D., Department of Surgery, Henry Ford Hospital, presented at a meeting of the Detroit Surgical Association in 1961.

Surgical Treatment of Postherpetic Neuralgia By Subdermal Denervation

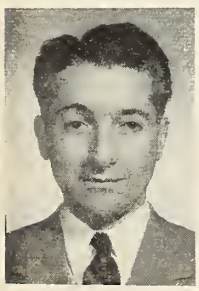
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SUBDERMAL denervation is a simple surgical procedure for intractable postherpetic neuralgia described by Abbott and Martin[1] in 1951. The procedure simply involves the undercutting of skin and subcutaneous tissue down to the fascia overlying the muscles under the entire herpetic scarred area. It is recommended that the dissection extend at least 4 to 5 cm. above and below the scarred areas. After all bleeding points are controlled, the skin edges are approximated with interrupted silk sutures. Since reports of experience with this procedure are meager in the literature, the following case is reportable.

Report of Case

F. W., a white woman, aged eighty-two, while vacationing in Florida experienced pain in her left upper abdomen on March 19, 1951. Two days later, a rash appeared on her left trunk just below the rib margin. A local physician diagnosed the case as that of herpes zoster and gave her an injection of penicillin. Her condition became worse, and about four days later, blisters appeared which were described as the size of large grapes. Her physician punctured these and prescribed a sedative and advised the use of a sulfa ointment three to four times a day. There was no relief after a period of eight to ten days. She was then referred to another physician who hospitalized the patient, prescribed sedatives and local applications of bismuth violet. After another week, the blisters appeared to be healing, but the pain and her general condition were no better. Following this, she received aureomycin, protamide and various sedatives and analgesics without benefit.

Her general condition grew worse and she was returned to Detroit. Here she was treated with vitamin B injections, codeine, phenobarbital, several subdermal injections of novocaine in the involved area, but nothing seemed to give her any more than transitory relief. She continued to complain of unbearable, lancinating and burning, stabbing pains in the left upper abdomen. Even the lightest bed covers were intolerable. She was unable to sleep. Her family, in shifts, tried to keep her as comfortable as possible through each 24-hour period. As time went on, she appeared to be deteriorating, often becoming irrational and disoriented. Both she and her entire family became utterly exhausted and finally she was hospitalized on August 21, 1951, five months after the onset.



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She was a known hypertensive for years and had pernicious anemia, controlled for many years with ventriculin. In 1949, she had a right iridectomy. Otherwise, her past history was non-contributory. Her family and personal history were also non-contributory.

Physical examination disclosed an aged white woman, well developed and well nourished, in obvious distress. Irregular deeply pigmented pocks separated by areas of bronzed skin were distributed along the upper abdomen on the left side, extending around to the back. The width of this involved area was about 4 to 5 cm. The entire involved area appeared to be very sensitive to the lightest touch, and the upper and lower margins were particularly hyperesthetic. Her blood pressure was 192/90. The remainder of her physical examination was not contributory.

Laboratory studies disclosed the following: blood Kline and complete urinalysis gave negative findings. Complete blood count: hemoglobin 10.5 grams, RBC 3,830,000, WBC 9,600, differential count: non-filament 3, filament 64, lymphocytes 32, monocytes 1. Blood NPN was 25 mg. per 100 cc. Sedimentation rate (Westergren) was 21 mm. in 60 minutes. Several stools for occult blood were negative.

In order to rule out any possible intra-abdominal pathologic condition, because of the severe pain in the left upper abdomen, x-ray studies of the chest with a complete gastro-intestinal series were made. These disclosed: (1) left ventricular enlargement of the heart with arteriosclerotic configuration of the aorta, (2) lungs clear, (3) negative film study of the abdomen except for osteoarthritic changes in the lower thoracic and lumbar spines, (4) small traction type diverticulum of the mid- one-third of the esophagus. No other abnormality was demonstrated in the upper gastro-intestinal tract, (5) diverticulosis and evidence of some chronic diverticulitis and minimal scarring of the sigmoid portion of the colon. The colon, terminal ileum and appendix otherwise appeared normal.

Since the patient showed rapid deterioration, much suffering and extreme exhaustion in the hospital, it was believed

that some form of definitive treatment should be carried out. Subdermal denervation, which was considered the procedure of choice, was carried out under procaine local infiltration on August 31, 1951. Flaps of skin and subcutaneous tissue down to the fascia overlying muscle were separated by sharp dissection of the entire left upper trunk. The dissection extended 4 to 5 cm. above and below the area containing the herpetic plaques. After all bleeding points were controlled, the skin margins were approximated with interrupted silk sutures and an elastoplast dressing applied.



Fig. 1. Anterior view.



Fig. 2. Post-lateral view.

The result was dramatic, with immediate and complete cessation of her intolerable pain. There has been absolutely no recurrence of pain or discomfort to date (July 28, 1960), about nine years after surgery. A serosanguinous discharge appeared seven days postoperatively. This was evacuated, but caused the skin edges to gape at several points. Her hemoglobin dropped to 8.9 grams with a red blood count of 2,850,000. This was corrected with blood transfusions of 500 cc. of whole blood on September 7 and 9. The gaped skin margins ultimately healed after the application of several pinch grafts. The end result is shown in Figures 1 and 2.

Discussion

It is well known that post-herpetic neuralgia usually occurs in the elderly patient after an attack of acute herpes zoster. It is also well known that the treatment of post-herpetic neuralgia is extremely difficult. It causes much suffering to the patient and at times ends in suicide. It offers considerable frustration to the attending physician. The many medical treatments used effectively in herpes zoster are of no avail for this complication.

The surgical treatment formerly employed involved a central approach, namely, posterior rhizotomy, cordotomy and lobotomy. These procedures have pretty well been abandoned in the treatment of post-herpetic neuralgia. More recently, this complication has been attacked peripherally. Browder and DeVeer,[2] in 1949, reported four cases in which they excised the involved skin and subcutaneous fascia and skin grafted the denuded area. There were two excellent results, one fair result and one poor result. Abbott and Martin[1] reported three cases in 1951, in which subdermal denervation was employed. There were two excellent results and one good result. More recently, Abbott[3] has indicated that about half of his patients have had excellent results and the other half good to poor results. He has also received information about two other cases treated by neurosurgeons in other communities in which the results of operation were excellent. Van Blaricom and Horrax[4] used this procedure on two patients with a good result in one and no result in the other. Most of the reported cases were observed for two to three years postoperatively. In general, it appears that the peripheral approach offers more promising results.

Head and Campbell[5] indicated that the pathologic lesion is often a great deal more extensive than would be indicated by the skin lesions. This would suggest the undercutting operation should go far beyond the involved skin plaques, both above and below the skin lesions.

Van Blaricom and Horrax[4] believe that this is a viral infection and that it causes extensive and persistent inflammatory changes along the neural pathways from the spinal cord to the terminal ramifications in the skin. They believe that these changes are the probable source of the pain impulses and that when the central nervous system is bombarded by too many pain stimuli for too long a time, a central pain mechanism is established with self-perpetuating circuits and

aggravated by many and various stimuli. This would suggest that in cases of intractable postherpetic neuralgia operation would be best done as early as possible or at least before this possible self-perpetuating circuit becomes established. In one of Abbott and Martin's cases, however, symptoms had persisted for two and one-half years before subdermal denervation was carried out, and the result was excellent, with no symptoms for a period of three years.

It is very difficult to understand why there are some excellent results and other poor results after subdermal denervation. From the observations above, it would appear that at least two factors might make the difference between a successful and unsuccessful result; namely, the extent of pathology and timing. Since it has been indicated that the central pathologic lesion is more extensive than is indicated by the skin lesions, it is recommended that undercutting be carried out far beyond the upper and lower borders of the skin lesions. Since there is a possibility of establishing a self-perpetuating circuit, if the condition is allowed to go for too long a time, it is best to operate as early as possible. Both of these factors may have played a part in the surgery carried out on the patient reported herein. Undercutting was carried out for at least 4 to 5 cm. above and below the involved skin margins, and the operation was performed five months after the onset of symptoms. An excellent result for a period now of nine years was obtained.

In general, it can be said that pathologically the site of inflammation has been observed in the peripheral nerves, the posterior root ganglia, posterior roots, posterior columns of the spinal cord as well as the sympathetic ganglia. With so many possible sites, it has been difficult to explain the origin of the pain in any one case. However, it does explain why rhizotomies, posterior ganglionectomies and cordotomies have usually failed to alleviate the the symptoms of intractable post-herpetic neuralgia. With subdermal denervation, Abbott and Martin's three patients, as well as the patient described in this paper, have obtained prolonged relief. The explanation seems to be not only a sensory denervation of the area, but also possibly a peripheral or subcutaneous sympathectomy. The procedure is a simple and conservative one and is certainly advised first in all cases of intractable post-herpetic neuralgia. If this fails, further extensive sympathectomy and multiple neurectomies can be considered.

Summary

1. Subdermal denervation was carried out in a patient nine years ago with complete and permanent cessation of symptoms to date (nine years postoperatively).

2. It is recommended that undercutting should be carried out far beyond the limits of the skin involvement.

3. In intractable post-herpetic neuralgia, subdermal denervation should be carried out as early as possible.

4. Subdermal denervation in intractable post-herpetic neuralgia shows promise, and all such experiences should be reported for future evaluation of this procedure.

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"Family Medicine" Popularity Rising

A new trend toward "family medicine" has been revealed by a survey of the kinds of practice selected by graduates of the University of Michigan Medical School.

The study, part of an extensive examination of health manpower resources by the U. S. Public Health Service, shows that about 48 per cent of the U-M medical graduates prior to 1915 entered general practice. Then came the great development of medical specialization and from 1915 to 1949 only 20 to 24 per cent of each class of U-M doctors entered general practice.

Now the percentage of "G.P.s" is climbing. From 1950 to 1954, the last classes for which accurate information is available, 30 per cent of U-M graduates have become general practitioners.

At the same time, a greater number of U-M graduates are remaining in the state of Michigan. Of those entering private practice from 1925 to 1944, about 46 per cent chose to practice in Michigan. This figure has climbed to 54 per cent for the classes graduating from 1945 to 1954. About 60 per cent of those who entered private practice from the classes of 1955 to 1958 have remained in the state.

A Report of 450 Consecutive Cesarean Sections

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FOUR hundred and fifty consecutive cesarean sections performed at the Women's Hospital of the University of Michigan were studied, and the data are here reported. Data were collected directly from the patient's hospital records. The infants' records were also studied for the period of hospitalization.

TABLE I. PRIMARY VS REPEAT SECTION
(450 Cases)

Section	Number	Percent of Total
Primary	235	52.3
Repeat	215	47.7

Most patients entering Women's Hospital for obstetrical care are residents of the University community and the city of Ann Arbor. Some are referred by physicians for the management of obstetrical problems and medical conditions complicating pregnancy.

TABLE II. ELECTIVE VS NON-ELECTIVE CESAREAN SECTION
(450 Cases)

Type	Number	Percent of Total
Elective	301	66.9
Non-elective	149	33.1
Total	450	100.0

Of the 450 sections, approximately one-half (235 or 52.3 per cent) were primary. Similarly nearly one-half (215 or 47.7 per cent) were repeat operations (Table I). Two-thirds (301 or 66.9 per cent) were elective, while one-third (149 or 33.1 per cent) were considered emergencies (Table II).

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Incidence

The incidence of cesarean section in this study was 3.5 per cent. Table III reveals that while the number of deliveries varied from year to year, the section rate remained quite constant.

TABLE III. INCIDENCE OF CESAREAN SECTION
1950-1958

Year	Number Deliveries	Number Cesarean Sections	Percent
1950	1,082	37	3.4
1951	1,241	41	3.4
1952	1,288	33	2.6
1953	1,415	48	3.4
1954	1,424	45	3.2
1955	1,538	62	4.0
1956	1,602	60	3.9
1957	1,618	70	4.2
1958	1,617	54	3.4
Total	12,825	450	3.5

Age

Approximately 62 per cent of patients sectioned were in the 21 to 30 year group. About 84 per cent were between 21 to 35 years (Table IV).

TABLE IV. AGE DISTRIBUTION OF PATIENTS SUBJECTED TO CESAREAN SECTION
(450 Cases)

Age	Number	Percent of Total
Under 20	23	5.1
21-25	125	27.8
26-30	155	34.4
31-35	97	21.5
36-40	37	8.3
41-45	13	2.9

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Parity

Table V deals with parity. Approximately 25 per cent of sections were performed in each of the para 0, 1 and 2 groups.

TABLE V. PARITY

Para	Number Patients	Percent of Total
0	120	26.6
1	123	27.3
2	119	26.4
3	50	11.4
4	17	3.8
5	11	2.3
6 or more	10	2.2

Indications

The reasons for performing cesarean section are set forth in Table VI. It should be emphasized that in many instances, there were *multiple* indications. In these cases, the main indication only was listed.

In this series, a previous cesarean section was our most common (50 per cent) indication for operation. While there are exceptions, we lean toward the dictum that "once a section, always a section."

TABLE VI. INDICATION FOR CESAREAN SECTION (450 Cases)

Indication	Number	Percent of Total
1. Repeat section	215	48.3
2. Contracted pelvis and/or mechanical dystocia		
A. Feto-pelvic disproportion	74	16.4
B. Dystocia due to malpresentation	24	5.3
3. Hemorrhage		
A. Placenta previa	35	7.8
B. Abruptio placenta	15	3.3
4. Intercurrent disease		
A. Diabetes mellitus	24	5.3
B. Carcinoma of cervix	4	0.9
C. Leiomyomata uteri	4	0.9
D. Other	6	1.3
5. Rh incompatibility	19	4.2
6. Toxemia	5	1.1
7. Miscellaneous		
A. Previous surgery on genital tract	10	2.2
B. Primary uterine inertia	7	1.6
C. Prolapsed cord	3	0.7
D. Post mortem	3	0.7

Contracted pelvis and/or mechanical dystocia accounted for approximately 22 per cent. Unless absolute feto-pelvic disproportion or one of the more serious types of malpresentation such as a transverse lie were present, the patient was generally allowed a trial of labor before electing abdominal delivery.

Approximately 11 per cent of the operations were performed because of antepartum hemorrhagic complications. About two-thirds of these were for placenta previa. Section for abruptio placenta was generally confined to cases in which there was maternal jeopardy due to blood loss, either concealed or overt.

Eight per cent of sections were performed because of intercurrent disease in the mother, the most common being diabetes mellitus. It is our belief that the highest fetal salvage among diabetic women is achieved when the pregnancy is terminated when there is good evidence of fetal maturity (approximately 37 weeks). We seldom favor medical or surgical induction of labor in the diabetic *primigravida.*

Rhesus factor incompatibility accounted for approximately 4 per cent of our sections. Patients presenting a history of erythroblastosis fetalis in a previous pregnancy are in our opinion, best managed by termination of the existing pregnancy when the infant becomes mature (36 to 38 weeks). If induction of labor fails or is contraindicated, section is performed.

TABLE VII. PRIMARY INDICATIONS IN PATIENTS FOR WHOM REPEAT SECTION WAS ELECTED

Indication	Number	Percent of Total
1. Contracted pelvis and/or mechanical dystocia		
A. Feto-pelvic disproportion	54	44.0
B. Dystocia due to malpresentation	6	4.8
2. Hemorrhage		
A. Placenta previa	17	13.7
B. Abruptio placenta	11	9.6
3. Intercurrent disease		
A. Diabetes	9	7.2
B. Previous C.V.A.	1	0.8
4. Toxemia	10	8.0
5. Rh incompatibility	6	4.8
6. Miscellaneous		
A. Previous surgery on genital tract	4	3.2
B. Primary uterine inertia	4	3.2
C. Cord prolapse	1	0.8

Toxemia was an indication (1.1 per cent) only when the disease failed to improve or deteriorated in the face of adequate medical management and induction of labor was not considered feasible.

TABLE VIII. TYPE OF SECTION (450 Cases)

Type	Number	Percent of Total
1. Low segment	352	78.0
2. Low segment in which incision extended into active segment	22	5.6
3. Classical	58	11.9
4. Extra-peritoneal	3	0.8
5. Cesarean hysterectomy	15	3.7

A miscellaneous group of indications constituted 5.2 per cent of the series (Table VI). Table VII lists the primary indications for section in patients upon whom repeat operations were elected.

Type of Operation

The low segment type operation was performed in 78 per cent (Table VIII). In 5.6 per cent, it was

necessary to extend the uterine incision into the active segment to accomplish delivery.

The classical approach (11.9 per cent) was utilized when speed of delivery was needed.

The extraperitoneal approach (0.8 per cent) was utilized three times, each a badly infected case. Cesarean hysterectomy was carried out in 15 instances (3.7 per cent) for either severe damage to the uterus or uterine disease.

TABLE IX. ANESTHESIA FOR CESAREAN SECTION (447* Cases)

Anesthesia	Number	Percent of Total
1. Conduction		
A. Spinal	277	62.0
B. Epidural	89	19.9
C. Local	9	2.1
2. General		
A. Cyclopropane	53	11.8
B. GOE	19	4.2

*Excludes 3 post-mortem sections

Anesthesia

We favor conduction anesthesia because of decreased fetal depression. Conduction anesthesia of some type was used as the main anesthetic agent in 84 per cent of our cases (Table IX). Inhalation anesthesia was utilized when there existed a medical contraindication to regional block, or when speed of induction was necessary or when the patient refused regional block anesthesia.

cent, as shown in Table X. Of these, only three were considered to be major complications, (one wound dehiscence, one pulmonary infarct, and one uretero-vaginal fistula following a Poro section).

TABLE X. MATERNAL MORBIDITY

Type	Number	Percent of Total
Fever of unknown etiology	20	4.5
Urinary tract infection	12	2.7
Wound infection	9	2.0
Pneumonitis	4	0.9
Postpartum hemorrhage	2	0.5
Dehiscence	1	0.2
Pulmonary infarct	1	0.2
Others	6	1.2
Total	55	12.2

Maternal and Fetal Mortality

The uncorrected maternal mortality in this series was four (0.9 per cent). One patient died of metastatic melanoblastoma five weeks after section, one died of acute bulbar poliomyelitis, one of acute leukemia, and the other of carcinoma of the pancreas.

Table XI reveals the breakdown of fetal mortality which uncorrected was 41 (9.1 per cent). The fetal causes of death were documented by necropsy in all instances.

Summary and Conclusions

1. Between January 1, 1950 and December 31, 1958, 450 cesarean sections were performed at the University of Michigan Medical Center Women's Hospital.

2. Of these, 52 per cent were primary and 47.7 per cent repeat sections.

3. The incidence of cesarean section was 3.5 per cent.

TABLE XI. FETAL MORTALITY IN CESAREAN SECTION

Maternal Causes	Number	Fetal Causes	Number	Term	Premature	Stillborn	Neonatal Death
Placenta previa	6			1	5	0	6
		Anoxia	1				
		Prematurity	5				
Abruptio placenta	7			3	4	3	4
		Anoxia	5				
		Prematurity	2				
Rh incompatibility	6	Erythroblastosis	6	5	1	0	6
Ruptured uterus	2	Anoxia	2	2	0	2	0
Disproportion and/or malpresentation	6	Anoxia	6	6	0	3	3
Carcinoma of cervix	3	Prematurity	3	0	3	0	3
Elective repeat section	3						
		Atelectasis	2	2	0	0	2
		Anomalies	1	1	0	0	1
Post mortem	3						
		Anoxia	2	0	2	2	0
		Acute polio	1	0	1	0	1
Previous C.V.A.	2	Prematurity	2	0	2	0	2
Cord prolapse	1	Anoxia	1	1	0	0	1
Toxemia	2						
		Anoxia	1	1	0	0	1
		Prematurity	1	0	1	0	1
Total	41		41	22	19	11	30

Maternal Morbidity

Fifty-five of 446* patients suffered some type of postoperative morbidity for an incidence of 12.2 per

*Four patients upon whom post-mortem section was performed have been omitted from this calculation.

4. Of the patients in this series, 62 per cent were between the ages of 21 to 30 and 84 per cent between the ages of 21 to 35.

5. The para 0, 1 and 2 patients each accounted for approximately 27 per cent of the sections.

6. The most common indication was a previous section. Contracted pelvis and/or mechanical dystocia and antepartum hemorrhage were the second and third most common indication respectively.

7. The lower uterine segment type of section was performed in 78 per cent.

8. Conduction anesthesia was used in 84 per cent of the cases.

9. The uncorrected maternal mortality was 0.9 per cent.

10. The uncorrected mortality was 9.1 per cent.

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Laryngeal Obstruction, Problems and Management

Preliminary tracheotomy, that is, tracheotomy prior to definitive surgery, has a definite place in the management of patients with obstructive laryngeal lesions. It allows an opportunity for the body to be restored to physiological equilibrium. Obstruction to the upper airway produces many changes in body physiology which should be corrected prior to surgery. Alterations in acid-base balance, respiratory center sensitivity and venous engorgement occurs. Preliminary tracheotomy eliminates the necessity of having to intubate the patient through the site of the lesion. Apnea and/or circulatory collapse may occur when tracheotomy is done on a chronically obstructed patient. If subglottic extension is evident, the tracheotomy should be made as low as possible.

Local tissue reaction, as well as difficulty in creating an adequate tracheostone, are undesirable sequelae.

Laryngeal biopsy, by indirect laryngoscopy, is an acceptable procedure in selected cases. This is particularly true in large extrinsic lesions and in those cases where subglottic extension is suspected. Direct laryngoscopy, done on a partially obstructed patient, often precipitates complete airway obstruction necessitating emergency measures. Adequate visualization of the larynx by direct laryngoscopy is not always possible. The results obtained with laryngograms in evaluating the site and extent of laryngeal lesions often supplement clinical evaluation when they are properly performed and evaluated. — Summary of paper given by Edward Heil, M.D., G. Jan Beekhuis, M.D., and James E. Croushore, M.D., Department of Otorhinolaryngology, Detroit Receiving Hospital, at a meeting of the Detroit Surgical Association in 1961.

The Value of Drugs in the Treatment Of Rheumatic Diseases

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THE TERM "rheumatic disease" embraces a wide spectrum of afflictions striking at the musculoskeletal system and other structures of mesenchymal derivation. Included within this classification are the common forms of articular disease such as rheumatoid arthritis, osteoarthritis, gout, and the "collagen" diseases in which the articular manifestations are frequently of lesser importance. This latter category includes rheumatic fever, systemic lupus erythematosus, polyarteritis nodosa, dermatomyositis, and scleroderma. In none of these disease states, which are grouped together on the basis of clinical and pathologic similarity, is the etiology clearly known.[1]

It is, therefore, not surprising that present drug therapy is unable to effect "cures" in the rheumatic diseases. Drug treatment is accordingly designed to suppress clinical manifestations and support the general health of the patient. In addition to planning drug therapy of a rheumatic patient, it is vital to assess his individual needs with respect to rest, physical therapeutic measures, and means for improving his general health. The physician must take time to outline the basic therapeutic program to which all forms of drug therapy are only supplemental. Systemic rest is an essential component of the basic program, and should consist of at least eight hours sleep nightly, with an additional one or two hours of rest during the day when possible. Rest of involved articulations is an important consideration which requires highly individual attention. Weight bearing joints may be spared by use of canes, crutches, or bedrest. Splints not only rest an involved joint, but prevent deformity and reduce the pain associated with muscle spasm. Physical therapy aims to maintain range of joint motion and muscle strength by use of appropriate therapeutic exercises. The use of heat aids greatly in obtaining maximal benefits from an exercise program, by virtue of its muscle relaxing and analgesic effect. Analgesic drugs similarly promote both rest and a more effective exercise program. The importance of the supportive role played by an understanding physician in his contact with the patient afflicted by a chronic, disabling disease should not be underestimated. Bearing in mind that drug administration should be an integrated part of the treatment plan for any patient with a rheumatic disease, let us turn to consideration of the pharmacologic agents themselves. Since the importance of many of the antirheumatic drugs and the method of their use are unsettled questions, the views expressed here necessarily reflect the bias of personal experience rather than a universal concensus. The following comments on drug usage are based upon their prescription to adults; if used in children, modification of dosage is required.

Salicylates

Salicylates, primarily aspirin (acetylsalicylic acid) and sodium salicylate, play an important role in the management of most rheumatic diseases. It is not sufficiently appreciated that they represent the safest, the most effective and the least expensive remedy for the musculoskeletal pain and stiffness of these disorders. Pain relief derived from salicylate administration is important not only for its own sake, but also as an aid to more adequate rest and more effective physical therapy. In addition to the well known analgesic and antipyretic effects of salicylates, it is likely that they possess an anti-inflammatory effect. The mechanism of this latter action is unknown, but



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current evidence suggests that it is not mediated by the adrenal cortex.[2] The antipyretic, analgesic and anti-inflammatory actions of salicylates are best demonstrated by the clinical response of patients with rheumatic fever. The musculoskeletal manifestations of more chronic disorders like rheumatoid arthritis and osteoarthritis are usually improved by salicylates in adequate dosage. Patients with systemic lupus erythematosus with predominant musculoskeletal symptoms may sometimes be satisfactorily managed with salicylates.

When using salicylates, it is important to remember that clinical benefit requires that the drug be taken on a regular schedule and in adequate dosage. As a general rule, an adequate clinical effect may be obtained by administering salicylates to tolerance; usually the point where gastrointestinal symptoms or tinnitus and deafness preclude further increments in the total daily dose. While the dose of a salicylate drug must be individualized, effective antirheumatic action is usually achieved with total daily doses varying between 3.6 grams and 6.0 grams. Regular doses of 0.6 grams to 1.0 grams may be administered at four-hour intervals while the patient is awake. To induce a patient to take 12 to 20 tablets of aspirin daily, one should allay fears about potential toxic effects and provide reassurance that the auditory symptoms are reversible with reduction in total daily dosage. One of the major impediments to achieving adequate oral doses of aspirin is the appearance of annoying gastric symptoms, usually nausea and epigastric burning. This can usually be avoided by giving the medication with or immediately after meals. At other times, administration with an interval feeding or an antacid is helpful. Occasional patients appear to tolerate buffered aspirin, calcium aspirin or sodium salicylate better than plain aspirin. The use of enteric coated aspirin commonly leads to decreased absorption and lowered serum salicylate levels. In the rare patient with true aspirin sensitivity (and especially in the allergic patient with the triad of asthma, nasal polyps and aspirin sensitivity) aspirin must be withheld, but can usually be replaced by sodium salicylate. Combinations of aspirin with other drugs, as para-aminobenzoic acid, steroids, and tranquilizers, offer no convincing advantages in our opinion.

Other Analgesic Agents

Rarely is there a need in the rheumatic patient for an analgesic agent with narcotic properties. In an occasional patient, non-narcotic analgesics such as dextro-propoxyphene (Darvon) or ethoheptazine citrate (Zactirin) may deserve trial. In cases with exceptional pain, small doses of codeine may be temporarily indicated. The use of narcotic agents with stronger addicting powers in these chronic and usually nonfatal disorders is to be condemned.

Gold Salts

Rheumatoid arthritis is the only rheumatic disease where the use of organic gold salts is justified. Chrysotherapy may be considered as an addition to the program of the patient with definite rheumatoid arthritis who has followed a conservative program (adequate rest, physical therapy, salicylates, et cetera) for six months or more without benefit. The patients most likely to benefit from gold therapy are those with active disease who are treated early in the course of their illness while many of their articular abnormalities are still reversible. Serious renal or hepatic disease, or a history of a previous toxic reaction to gold salts and lack of a definite diagnosis of rheumatoid arthritis are contraindications.

Prior to instituting gold therapy, bromsulphalein retention and creatinine clearance determinations are obtained to insure normal liver and renal function.

Gold preparations in common use are the soluble organic gold salts, aurothioglucose (Solganal) and aurothiomalate (Myochrysine). Injections are given at five to seven day intervals, beginning with 10 mgm. for the first injection, 25 mgm. for the second and 50 mgm. thereafter. Prior to each weekly injection the patient is seen by his physician to check for possible drug toxicity in the form of dermatitis, stomatitis or pruritus. A weekly white blood cell count, hemoglobin, and survey of platelets and urinalysis will guard against the insidious development of toxic nephritis or blood dyscrasia. The faithful use of these simple clinical safeguards usually permits the physician to identify gold toxicity early and markedly enhances the safety of this form of treatment. Injections at weekly intervals are continued until the patient has had a total cumulative dose of 800-1000 mgm., and then the frequency of injections is decreased. When the decision to decrease the frequency of aurothioglucose injections is made, we commonly give 50 mgm. every second week for three or four injections, then every three weeks for several injections and ultimately continue with 50 mgm. injections at monthly intervals. Clinical improvement seldom occurs before the total dose has reached 300 to 400 mgm. and if the patient's status is not significantly improved by the time he has received 1000 mgm., the drug should be discontinued. In those patients who show

satisfactory improvement, or go into a remission, it may be worthwhile to continue indefinitely with regular monthly injections at the 50 mgm. level in the hope of reducing the incidence of relapse.

If the routine preinjection clinical and laboratory survey reveals an abnormality compatible with gold toxicity, gold therapy should be immediately stopped. Where mild pruritic dermatitis is the primary toxic manifestation, cessation of gold therapy and use of antihistaminics will usually suffice. More serious complications such as exfoliative dermatitis or severe hematopoietic depression may require management with corticosteroids and/or British anti-lewisite.

Steroid Therapy

Systemic therapy with ACTH and adrenal corticosteroids has no place in the management of osteoarthritis and is of equivocal value in scleroderma. The results of steroid therapy of polyarteritis nodosa have generally been disappointing but are somewhat more promising in dermatomyositis. In early rheumatic fever with carditis, the question remains controversial as to whether steroid therapy may have more to offer than salicylates in reducing subsequent valve deformity. In acute gout, where episodic attacks are not adequately controlled with colchicine, brief courses of ACTH or a corticosteroid will usually produce a satisfactory resolution of the attack. Under these circumstances, maintenance doses of colchicine should be employed simultaneously in amounts of 1.5 to 2 mg. daily.

Since their introduction, steroids have been widely used in the management of rheumatoid arthritis. Early enthusiasm over the desirable anti-inflammatory effect has been tempered by the appearance of untoward effects including osteoporosis, "pathologic" fractures, masking of infection, peptic ulcer, fluid retention, aggravation of diabetes mellitus, psychosis, et cetera. Subsequent experience has shown that prolonged steroid therapy may be associated with cyclic variation of mood, energy and muscle symptoms ("hypercortisonism"), myopathy, necrotizing vasculitis, and occasional transformation to a "malignant arthritis" which resembles a mixture of systemic lupus erythematosus and polyarteritis nodosa.[3] In most patients to whom the usually employed dosages of adrenocortical steroids are administered for a prolonged period, some degree of "hypercortisonism" is likely to ensue and persist for many months after withdrawal of therapy.

In view of the seriousness of the potential complications of prolonged steroid therapy and with the knowledge that the ultimate results in terms of improved joint pathology and function appear to be no better than achieved with other more conservative measures of treatment, these drugs are utilized uncommonly by our staff in the routine, long-term management of rheumatoid arthritis. Upon the basis of the accumulated experience of many observers, some helpful generalizations can be made as a basis for rational and safer employment of adrenocortical steroids in patients with rheumatoid arthritis. Reasonably definite indications to embark upon steroid therapy include the complication of threatening eye disease such as iritis or chorioretinitis. In some instances, the predominance and threat of constitutional manifestations or the presence of active disease menacing the patient's ability to hold down a job or meet family responsibilities may justify a careful trial of steroid therapy.

Careful and prolonged trial of the basic conservative plan of management should have been undertaken in every patient before the decision is made to employ steroids; in any event, these modalities of treatment are continued and not supplanted by hormonal therapy. The lowest possible dosage should always be prescribed; usually this does not exceed 5 to 7.5 mg. of prednisone or its equivalent daily. Both parties must appreciate that this represents the maximum permitted dose and that the goal should always be reduction of this to the minimal amount. Failure to achieve adequate symptomatic response or control of disease activity with these dose levels, within a reasonable period of time, appearance of adverse side effects or occurrence of a spontaneous remission are indications for *gradual* discontinuation of steroid therapy. Decrements of 1 to 2 mgm. of prednisone at seven- to ten-day intervals are ordinarily well tolerated. Resultant flares of musculoskeletal symptoms are generally transient and can usually be managed with increased doses of salicylates without restoring the higher steroid dose. With stressful circumstances, such as surgery, trauma or serious infection, in the first year after steroid withdrawal, it is necessary to supply the patient with exogenous steroids to tide him over the immediate emergency and avoid serious adrenal insufficiency.

The adrenocortical steroids are sometimes combined with other forms of therapy in patients with rheumatoid arthritis. In occasional circumstances it appears worthwhile to use small doses to suppress symptoms in the patient incapacitated by active early rheumatoid arthritis and who has been started upon gold therapy. As the latter medication begins to exert an effect, the gradual withdrawal of the steroid is undertaken. While this sort of therapeutic program offers more prompt symptomatic relief to the patient, its advantages are

counterbalanced by the hazard of unrecognized gold toxicity which is ultimately "unmasked" when steroids are withdrawn.

In systemic lupus erythematosus, a potentially fatal disease, there is little doubt that steroid drugs are at times life saving. From 20 to 60 mgm. or more of prednisone daily may be required to control an acute lupus crisis, with subsequent tapering of the dosage as noted previously. Not all patients with systemic lupus require steroid therapy. Chronic steroid administration is frequently required by those patients whose clinical picture is dominated by polyserositis, severe systemic manifestations, or hematologic abnormality, but can often be avoided in those who present a picture resembling rheumatoid arthritis. In the latter case salicylates and/or antimalarials may be sufficient. It is not yet clear whether high doses of steroids will favorably influence the renal lesion of lupus.

Hydrocortisone, prednisone, and prednisolone are the commonly used steroids in our experience, the last two possessing the advantage of less salt retaining effect. Of the more recent steroids, methyl prednisolone (Medrol) offers no particular advantage over prednisone, and the usefulness of triamcinolone (Aristocort, Kenacort) and dexamethasone (Decadron) is often limited by side effects.

It is safe to stress, as far as the patient with rheumatic disease is concerned, that increased potency of a steroid is not a recommendation. When allowances are made for differences in potency, none of the synthetic preparations available today possesses an antirheumatic effect significantly different from that of cortisone.

Intra-articular steroid therapy is sometimes of considerable value, particularly in facilitating physical therapeutic measures in the patient with rheumatoid arthritis (and occasionally osteoarthritis) with one or several joints which are especially symptomatic. Rigid aseptic technique must always be employed in intra-articular therapy. Although a wide variety of preparations are available for intra-articular use, 25 to 50 mgm. of hydrocortisone tertiary butyl acetate has been as satisfactory as any other in our experience.

Antimalarials

Within the past decade, it has been recognized that certain antimalarial compounds may have a beneficial effect upon some of the diseases of connective tissue.[4] Results have been most impressive in discoid lupus erythematosus where the effect upon the skin lesion is regarded as almost specific. The following statements attempt to summarize current opinion regarding the use of these agents in systemic lupus erythematosus and rheumatoid arthritis:

1. Although there is clinical evidence to suggest that they may be of symptomatic benefit, there is as yet no conclusive evidence that the antimalarials exert any significant effect upon the course of these diseases. They would appear to be worthy of therapeutic trial in cases of mild or moderate severity but should not be relied upon alone to control the more severe and serious manifestations.
2. Their mode of action in these disorders is not understood.
3. Their effects are cumulative; an immediate response should not be anticipated; when possible, therapy should be continued for several months before being discontinued as ineffective.
4. Serious toxicity has been rare despite an appreciable incidence of minor side effects. If effective, maintenance therapy with these agents would appear to be less hazardous than prolonged steroid administration. These drugs can be safely employed in combination with other forms of therapy.
5. Their final role in the management of these rheumatic diseases will depend upon further carefully controlled clinical experience. The following compounds are among those currently undergoing evaluation.

Quinacrine (Atabrine).—A synthetic acridine dye is effective in discoid lupus erythematosus but in general disappointing in the treatment of systemic lupus erythematosus and rheumatoid arthritis. Although usually well tolerated in a dose of 100 mgm. one to three times daily, it is not widely used at present because of occasional hematologic complications and the characteristic yellow discoloration of the skin which it produces.

Chloroquine (Aralen).—Like hydroxychloroquine and amodiaquin, chloroquine, a 4-aminoquinoline compound, has been widely utilized in the therapy of discoid and systemic lupus erythematosus and rheumatoid arthritis. The usual dose has been 250 mgm. once or twice daily. There is an appreciable incidence of side-effects, among them gastrointestinal symptoms, dermatitis, bleaching of the hair and leukopenia. A variety of neurologic and psychic reactions including difficulty in visual accommodation, headaches, dizziness, tinnitus, weakness, mental confusion, hallucinations, insomnia and nervousness have been observed. Several reports have been made of the occurrence of blurring of vision or a "halo" effect due to corneal

edema or opacification;[5] fortunately these changes have proved to be reversible when the drug was discontinued.

Hydroxychloroquine (Plaquenil) is quite similar to chloroquine although somewhat better tolerated. The customary dose has been 200 mgm. two to four times daily.

Phenylbutazone

Phenylbutazone (Butazolidin) is an antirheumatic agent of some value in selected cases of rheumatoid arthritis, rheumatoid spondylitis, acute gout and allied disorders. It is a pyrazole derivative, chemically similar to aminopyrine, having serious toxic potentialities including agranulocytosis, aplastic anemia, thrombocytopenia, peptic ulcer, skin rash, edema and toxic hepatitis. It is contraindicated in the presence of edema, congestive cardiac failure and peptic ulcer and should not be used unless the desired effect cannot be obtained with safer drugs. The minimum effective dose should be employed. In rheumatoid arthritis and rheumatoid spondylitis 100 mgm. is administered three times daily for five to seven days, and 100 mgm. once or twice daily thereafter. The drug is discontinued if there is no benefit in seven days. If therapy is to be continued the patient should be observed at frequent intervals for the presence of edema, skin or mucous membrane lesions, symptoms of peptic ulcer or change in hemoglobin or white blood cell count. Phenylbutazone is highly effective in controlling acute gouty arthritis; its use is not accompanied by the sometimes annoying gastrointestinal side effects of colchicine, but it possesses the disadvantage of being less specific and hence of less value in a diagnostic trial. Administration of 200 mgm. every six to eight hours will control most acute gouty episodes within 48 hours; dosage is then reduced in stepwise fashion and the drug discontinued in seven to ten days. As with ACTH and the adrenal corticosteroids, it is probably advisable to administer colchicine in maintenance doses during and for several weeks following phenylbutazone therapy for acute gout. Although most patients with degenerative joint disease do very well on a conservative program of salicylates, physical therapy, weight reduction and restriction of activity, occasionally persistent pain is encountered which is adequately controlled by 100 mgm. of phenylbutazone once or twice daily.

Colchicine and Derivatives

Colchicine, derived from Colchicum Autumnale, is a specific for acute gout and remains the agent of choice for management of this disorder. It is of interest that, although used for over fourteen centuries, its mode of action remains unknown. It has no demonstrable effect upon the metabolism of uric acid. For relief of acute gouty arthritis, 0.5 or 0.65 mgm. is administered orally at hourly intervals until: (1) relief is obtained, (2) gastrointestinal side effects develop, or (3) a total of 15 tablets has been given. Diarrhea, the most common side effect, can be satisfactorily controlled with four to eight cc. of paregoric taken at four-hour intervals. To be most effective this therapeutic regimen should be instituted early in the course of the acute episode. With clearing of the acute attacks it is advisable to give smaller maintenance doses, i.e., 0.5 to 0.65 mgm. two or three times daily for at least several weeks to prevent recurrence. If for any reason the patient is unable to take oral medication, colchicine may be administered intravenously in an initial dose of 1 mgm. followed by 0.5 mgm. at six-hour intervals for four additional doses. Intravenous colchicine may also be useful in the occasional patient who, because of severe gastrointestinal side effects, can tolerate only three or four oral doses.

Colchicine is also of considerable prophylactic value in patients with frequent episodes of acute gout. Administration of 0.5 or 0.65 mgm. two or three times daily appears to reduce strikingly the incidence and severity of acute attacks in most instances. Maintenance therapy of this sort is well tolerated and does not lose its effectiveness even when continued for periods of more than ten years. In general, colchicine therapy as outlined is safe and, except for the gastrointestinal side effects, well tolerated. Other Colchicum alkaloids have been isolated and evaluated clinically. One of these, desacetylmethylcolchicine (Colcemide) is effective in controlling acute gout with less severe gastrointestinal manifestations, but is inadvisable for routine use in view of a significant incidence of hair loss and hematologic complications. Others, among them desacetylthiocolchicine, are undergoing evaluation but are not yet available for routine use.

Uricosuric Agents

The most significant of recent advances in the management of gout has been the introduction of uricosuric agents which effectively prevent, and possibly reverse, the tophaceous complications of severe, long standing gout. It should be recognized that these agents are *not* effective in the control of acute gouty arthritis and, conversely, that colchicine does not influence serum urate levels or prevent the development of tophi. Consideration of uricosuric therapy is virtually mandatory

in the presence of tophi and is advisable whenever the serum urate level is persistently in excess of 8 mgm. per cent. Since it must be continued indefinitely and is in some instances an appreciable expense, it is not automatically recommended in every case of gout. Needless to say, reliable and repeated serum urate determinations are a pre-requisite to rational use of uricosuric agents.

Probenecid (Benemid).—This drug is in many respects the present standard with which other uricosuric preparations must be compared. It interferes with renal tubular function, presumably by action on enzymatic transport systems. Tubular excretion of such compounds as penicillin, phenolsulfonphthalein and p-aminosalicylic acid is impaired. In addition, tubular reabsorption of urate is inhibited thus enhancing urinary urate loss. In slightly more than 50 per cent of cooperative gouty individuals with normal renal function the serum urate level can be reduced to and maintained within or near the normal range with probenecid. Prolonged therapy with this agent is often associated with improvement in sense of well being and decrease in chronic gouty symptoms. The frequency of acute gouty attacks is reduced, perhaps due in part to coincident maintenance therapy with colchicine. Although both uricosuric therapy and maintenance colchicine are frequently indicated in the patient with chronic gout, there is no particular virtue in combining both agents in a single tablet. In less than one-fourth of the patients are tophi seen to decrease in size. In some gouty individuals, institution of uricosuric therapy is accompanied by an apparent and distressing increase in frequency of acute attacks; for this reason concomitant maintenance therapy with colchicine is recommended. The hazard of formation of uric acid calculi in the urinary tract can be reduced by maintenance of a large urinary volume and an alkaline urine. There is evidence that large doses of salicylates, which are themselves uricosuric, will counteract the uricosuric effect of probenecid; therefore the two agents should not be administered simultaneously. The usual initial dose is 0.25 gm. twice daily for several weeks increasing to an average dose of 0.5 gm. three times daily. Probenecid must be continued indefinitely, as is true of all uricosuric agents.

Salicylates have long been known to exert a uricosuric effect. Although used with increasing frequency in recent years, their clinical usefulness is hindered by the fact that the doses required, generally in excess of 5 or 6 gms. daily, are commonly associated with gastrointestinal symptoms, tinnitus and other evidences of salicylism. It has been demonstrated that salicylates, like most other uricosuric agents, produce a paradoxical urate retention at low plasma concentrations.[6]

Phenylbutazone, although possessing uricosuric properties, has not been recommended for this purpose in view of its potential toxicity. Several analogues have been extensively investigated however, and one, sulfinpyrazone (Anturan), is currently available. Thus far, serious toxicity has not been observed. Indications and precautions are the same as with probenecid. Salicylates also interfere with the uricosuric action of sulfinpyrazone.

Summary

Although "cure" of the patient with rheumatic disease is not obtainable with the agents of today, a few drugs are indispensable to the basic, conservative program of management of these individuals. A number of other preparations may be usefully employed in individualized situations. The even greater number of preparations of questionable or no value recommends maintenance of a critical attitude by the practicing physician. In general, use of the newer agents such as the synthetic corticosteroids is associated with a calculated hazard.

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Comparison of Some Recent Serologic Tests For Rheumatoid Arthritis

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THE DIAGNOSIS of advanced or well-established rheumatoid arthritis seldom presents a problem for the experienced clinician. The characteristic objective joint changes, often associated with subcutaneous rheumatoid nodules, are sufficiently distinctive to avoid confusion with other joint diseases. In its earlier stages, however, rheumatoid arthritis frequently presents a less distinctive clinical picture which may simulate rheumatic fever, gout, specific infectious arthritis or other rheumatic disorders. In this situation there is a great need for laboratory procedures with sufficent sensitivity and specificity to be of diagnostic value.

In recent years, a number of serologic tests have been introduced as aids to the diagnosis of rheumatoid arthritis. These procedures depend upon the presence in the serum of most patients with rheumatoid arthritis of an abnormal protein which moves electrophoretically as a gamma globulin and has the ultracentrifugal characteristics of a macroglobulin. It has been demonstrated that this "rheumatoid factor" has the ability to combine with immune or gamma globulin ("reactant") from human or animal sources. In the various tests, an indicator particle is coated or "sensitized" with the "reactant" and the presence of rheumatoid factor in the test serum detected by the resultant agglutination or flocculation. Variations in the source or method of preparation of the three components of the test system account for the many modifications which have been described.

TABLE I. PROCEDURES

Test	Rheumatoid Factor	Reactant	Indicator Particle	Positive Titer
S.S.C.A. (Ziff)	Euglobulin fraction	Rabbit anti-sheep RBC serum	Sheep RBC	1:14 or greater
Latex fixation	Whole serum	Cohn fraction II	Latex particle	1:20 or greater
Bentonite flocculation	Whole serum	Cohn fraction II	Bentonite particle	1:32 or greater
"RA-slide test"	Whole serum	Cohn fraction II	Latex particle	1:20
Alligator erythrocyte hemagglutination test	Whole serum	Rabbit anti-alligator RBC serum	Alligator RBC	1:2 (approx.)

Comparative results with four widely used serologic tests for rheumatoid arthritis (the Ziff and Svartz-Schlossmann modifications of the sensitized sheep cell agglutination test, the latex fixation test, and the bentonite flocculation test) have previously been reported from this laboratory.[1] The present study was undertaken in order to evaluate two techniques described more recently. The first of these is a patented



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TABLE II. TESTS

Diagnosis	Number of Patients	Latex Fixation Test (Singer and Plotz)			"RA-Slide Test"				Sensitized Sheep Cell Agglutination (Ziff)			Bentonite Flocculation			Alligator Erythrocyte Agglutination		
		Number Tested	Number Positive	Per Cent Positive	Number Tested	Number Reactive	Per Cent Reactive	Per Cent Reactive & Wkly. Reactive	Number Tested	Number Positive	Per Cent Positive	Number Tested	Number Positive	Per Cent Positive	Number Tested	Number Positive	Per Cent Positive
Rheumatoid arthritis, classical or definite	64	60	52	87	64	42	66	80	62	43	69	62	34	55	64	37	58
Juvenile rheumatic arthritis	4	4	2	50	4	0	0	0	3	1	33	4	0	0	4	1	25
Rheumatoid spondylitis	10	10	2	20	10	0	0	30	9	0	0	9	0	0	9	2	22
Psoriatic arthritis	5	5	0	0	5	0	0	20	5	0	0	5	0	0	5	0	0
Arthropathy associated with ulcerative colitis	7	6	0	0	7	0	0	43	6	0	0	7	0	0	7	0	0
Osteoarthritis	6	6	1	17	6	0	0	50	6	0	0	6	0	0	6	2	33
Rheumatic fever	3	3	1	33	3	0	0	33	3	0	0	3	0	0	3	0	0
Gout	6	5	0	0	6	0	0	67	6	0	0	4	0	0	5	0	0
Normals and blood donors	57	57	1	2	57	0	0	0	57	0	0	57	0	0	51	1	2

commercially available modification of the latex fixation test (the RA-test, Hyland Laboratories) which is promising because of its extreme simplicity and potential usefulness in an office or clinic setting. The second is the alligator erythrocyte hemagglutination test of Cohen and associates,[2] which makes use of the facts that alligator erythrocytes lack human red cell antigens, while human sera lack heterophile antibodies to alligator erythrocytes, thus avoiding prior absorption of heterophile antibody which is a necessity if sheep erythrocytes are to be used.

Materials and Methods

Sera were obtained from patients with a variety of diseases on the inpatient service or attending the Arthritis Clinic of the University of Michigan Hospital. Control sera were obtained from a group of apparently healthy blood donors and normal subjects.

The procedures employed are outlined in Table I. The technique employed in the performance of each test was that described by the original authors,[2-5] or the manufacturer in the case of the "RA-slide test." In performing the "RA-slide test," a drop of the test serum is diluted 1 to 20 with glycine-saline buffer diluent and added to a drop of latex-globulin reagent on a slide and mixed. Aggregation is interpreted in comparison with known positive and negative sera which are supplied by the manufacturer. Results are recorded as reactive, weakly reactive and negative. Test results were not considered in the classification of those patients with rheumatoid arthritis.

Results

The tests employed gave positive results in the majority (but not all) of 64 patients with classical or definite rheumatoid arthritis (Table II). The prevalence of positive results with the conventional latex fixation test, the sensitized sheep cell agglutination reaction and the bentonite flocculation test was 87 per cent, 69 per cent, and 55 per cent, respectively. The alligator erythrocyte agglutination test was positive in 37 of 64 patients, a prevalence of 58 per cent. The "RA-slide test" was reactive in 42 of 64 patients (66 per cent), and was weakly reactive in an additional 9 patients (14 per cent).

Results were almost uniformly negative with all procedures in the group of 57 normal subjects and apparently healthy blood donors. Occasional positive reactions were obtained in patients with other rheumatic diseases but the number of cases involved is too small to have statistical significance.

To further compare the performance of the con-

ventional latex fixation procedure and the RA-test, an additional 225 sera from patients with a variety of rheumatic disorders were examined (Table III). Both tests were positive in 44 instances and both negative in 160. In 17 cases, the "RA-slide test" was weakly reactive, while the tube dilution procedure was negative (11 cases) or positive (six cases). In only four cases was one test definitely positive while the other was negative.

Discussion

Results of the present study are comparable to our earlier experience with several of the serologic tests for rheumatoid arthritis.[1] Positive reactions were obtained in from 55 to 87 per cent of patients with classical or definite rheumatoid arthritis. A minority of patients with other connective tissue diseases had positive tests while almost all healthy subjects gave negative results. The apparent differences in sensitivity and specificity between the procedures is to some extent artifically created by the conditions of testing.

All of the procedures evaluated were considered to provide essentially the same diagnostic information. No single test was positive in all cases of rheumatoid arthritis, hence it is apparent that a negative test cannot be relied upon to exclude that diagnosis. Similarly, all procedures gave occasional positive results in non-rheumatoid patients, so that a positive test cannot be considered by itself as diagnostic. The diagnosis of rheumatoid arthritis is best established at present by careful consideration of all of the diagnostic criteria of the American Rheumatism Association.[6] In spite of these shortcomings, these serologic procedures have generally proved their usefulness in the study and management of patients with rheumatic diseases.

The tests also vary considerably with respect to their technical aspects. The alligator erythrocyte hemagglutination test has the advantages over the sheep cell agglutination test of greater particle stability and avoidance of the necessity of prior absorption of heterophile antibody from the test sera. Tests employing the inorganic latex and bentonite particles also possess this latter advantage. Considerable manipulation is required to reduce the range of particle size of commercially available bentonite so that tests employing that particle are at a slight disadvantage in comparison with those utilizing latex, which is supplied as a suspension of particles of uniform diameter. The "RA-slide test" has the advantage of speed and simplicity. Several reports have confirmed the clinical usefulness of the slide modification in comparison with more complex serologic techniques.[7,8] Our results would also appear to indicate the value of this procedure for routine laboratory use provided caution is exercised in the interpretation of test results. It would also seem desirable to compare the performance of the "RA-slide test" with the tube dilution latex fixation test or other serologic procedures periodically.

TABLE III. COMPARISON OF RESULTS WITH THE "RA-SLIDE TEST" AND THE LATEX FIXATION TEST

Latex Fixation Test		"RA-Slide Test"	
Positive	50	Reactive	48
"RA-slide test"		Latex fixation test	
Reactive	44	Positive	44
Wkly. reactive	6	Negative	4
Negative	175	Weakly reactive	17
"RA-slide test"		Latex fixation test	
Reactive	4	Positive	6
Wkly. reactive	11	Negative	11
Negative	160	Negative	160
		Latex fixation test	
		Positive	0
		Negative	160

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Iron-Vitamin Supplement Drops for Infants

A Controlled Study of the Effects of Iron-Enriched Multiple Vitamin Drops in Normal Infants

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IRON deficiency anemia is reported to be the most common deficiency disease of infancy and childhood at the present time.[1,2,3] This is thought to be due to a dietary lack of iron relative to the child's needs in a period of rapid growth.[1,4,5]

Presuming this to be the case, in consideration of the degree to which mothers of pediatric age group patients are conditioned to the consistent administration of daily multiple vitamin supplement drops, it was evident that such vitamin drops offered an excellent medium by which to supplement the dietary iron in a widely accepted and routine fashion. This controlled study was designed therefore to assess the benefit deriving to children receiving iron with their daily vitamin supplement. Coded materials were provided under blind label with and without the added iron, otherwise being equal in all other ways. Neither the physician nor the patient knew whether the vitamin drops furnished did or did not contain the supplemental iron. Hemoglobin concentrations were to be determined at the beginning and at the end of the study and comparison of the two groups of children would then reveal whether any benefit had occurred.

Methods and Materials

The children participating in the study were unselected, alternately assigned cases as they appeared in an office practice. There was no attempt to place a child in one or the other category, each child being alternately assigned A or B according to the last previous assignment. The only exception to this was in the case of the prematures. They were assigned in their own alternating sequence.



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All children were between the ages of one and three months at the beginning of the study in order to begin supplemental vitamins and iron before the minimum hemoglobin expected at the age of three months, and also to begin iron supplementation well before the first probability of iron utilization for the formation of hemoglobin.

Most of the children were treated eight and nine months. One child was treated five and one-quarter months. The maximum treatment was twelve months. Twenty-seven finished the study; fourteen in group B and thirteen in group A.

The parents were instructed to administer 0.6 c.c. of the vitamin drops once daily between meals on an empty stomach with water or fruit juice to follow, and never to administer them in conjunction with milk.

At the conclusion of this study, it was revealed that product A contained 25 mg. of ferrous sulfate, equivalent to 5 mg. of elemental iron in 0.6 c.c. Both products contained in 0.6 c.c.: 6,500 units of vitamin A, 1,100 units vitamin D3, 60 mg. of vitamin C, 1.1 mg. of vitamin B6.

Hemoglobin concentration was determined on the day of beginning administration of the two vitamin preparations and again six to twelve months later at the termination of the study after continuous administration of the test materials. Hemoglobin was determined by the Sahli-Adams colormetric method, converting the hemoglobin to acid hematin and diluting the hematin solution until the color of the resulting solution matched standarized color bars. The hemoglobin concentration then was read according to the final volume of solution resulting in a standardized tube. All hemoglobin concentrations were determined by one of two persons, each performing some of the

hemoglobin determinations both at the beginning and at the end of the study.

Diet instructions to the mothers of these children routinely included the addition of ready-prepared baby cereals at one or two months, fruits at two or three months, a full diet at three months with the addition of a daily egg yolk at four months. By far, the majority of these infants were on such well-rounded diets by the time they had reached the age of five months and continued on the same until the close of the study.

The duration of administration of the vitamin and vitamin-iron supplement was intended to be a minimum of six months. As it happened, the majority of these children were treated eight and nine months. Table I shows the scatter and distribution of the months of duration of treatment. The mean duration of treatment was 8.6 months for preparation A and 8.3 months for preparation B. The mode was eight months for both products. The median was eight months for both products.

TABLE I. DURATION OF ADMINISTRATION IN MONTHS

A	B
	5¼
6	6
7	
8, 8, 8	8, 8, 8
8, 8	8, 8, 8
9, 9, 9	9, 9, 9
9	9
	10
11	11
12	
13 cases	14 cases

TABLE II.

Number	Preparation	Began			Final	
		Date	Age	Hbg.	Hbg.	Date
1	A	2/ 3/59	2 m	10.8	10.0	11/18/59
2	A	2/ 5/59	2 m	10.8	16.0	8/12/59
3	A	2/10/59	2 m	10.0	13.8	11/ 9/59
4	A	2/17/59	3 m	9.7	11.5	2/17/60
5	A	2/25/59	1 m	13.0	11.8	11/ 5/59
6	A	2/ 3/59	2 m	12.0	14.0	11/18/59
7 (premie)	A	3/ 3/59	1 m	12.0	11.8	11/ 5/59
8	A	3/ 4/59	2 m	13.0	14.0	9/21/59
9	A	2/26/59	1 m	15.8	12.0	12/ 8/59
10	A	3/ 5/59	2 m	11.8	13.0	11/ 5/59
11 (premie)	A	2/29/59	½ m	10.2	11.5	1/28/60
12	A	2/16/59	2 m	10.7	14.0	11/16/59
13	A	2/20/59	2 m	11.0	11.8	11/ 3/59
14	B	2/ 3/59	1 m	14.5	12.8	11/ 5/59
15	B	2/10/59	2 m	10.0	10.2	11/ 6/59
16	B	2/12/59	2 m	9.8	13.8	11/ 5/59
17	B	2/16/59	1 m	12.6	13.8	11/ 4/59
18	B	2/17/59	2 m	9.5	15.0	11/17/59
19	B	2/25/59	2 m	10.2	11.5	2/ 2/60
20	B	2/27/59	1 m	12.0	13.8	1/ 4/60
21	B	3/ 2/59	1 m	9.8	12.2	11/ 5/59
22	B	3/ 3/59	1½ m	17.0	15.0	11/ 5/59
23	B	3/ 3/59	2 m	14.1	14.2	11/ 5/59
24	B	2/20/59	1 m	13.8	14.0	11/ 5/59
25	B	2/23/59	1 m	11.8	12.2	8/ 3/59
26	B	2/24/59	2 m	10.0	13.2	8/18/59
27 (premie)	B	3/12/59	1¼ m	7.8	7.8	11/ 5/59

Results

For group A, the average hemoglobin for the children at the beginning of the test was 11.6 gm. and 12.7 mg. at the end of the test. Similar figures for product B: at the beginning, 11.6 gm., and at the end, 12.8 mg. The average net gain in hemoglobin per case for product A was 1.11 gm. and for product B was 1.18 gm.

The very small and unimportant difference between the results on the two series of children give the faint edge to the product *not* containing iron. These differences are obviously not statistically significant.

Discussion

The above figures show that the two groups were entirely comparable in age and duration of treatment, the diets in both cases were in all likelihood also entirely comparable. It was routine to start supplementing the milk diet with solid foods at least by the age of two months depending somewhat on the rate of gain and the baby's birth weight. Certainly, by the time the babies were four or five months old, they were on full strained food diets, and special attention was given to the inclusion of egg yolk and meat in the diet. Therefore, the only discernable difference between the two groups was that one received

5 mg. of iron per day in addition to a rather adequate diet and the other did not.

Possible reasons for the failure to show a difference between the two groups might be as follows:

1. *There was too little iron to make a difference.*— This is not substantiated in the reports of other investigators. Marsh[4] at the University of Kansas found that milk containing an additional 10 mg. per quart (of which the child probably received 2/3 qt./day or 6.5 mg. of iron) was quite sufficient to show a major difference within six months time. Sturgeon,[1,6] of Los Angeles, showed that 0.5 mg. of iron per kilo, which is approximately one half of what was administered in this study, was quite sufficient to show a marked difference in six to eight months in the children he studied.

2. *The total dietary iron was of sufficient quantity so that the supplementary 5 mg. was beyond optimum needs and therefore additional hemoglobin accumulation did not occur.* This is the probable cause for the lack of difference between these two groups. Sturgeon has estimated that the diets of children in the income and education group from which these patients are drawn, in all likelihood receive: 1 mg. daily of iron in egg yolk, 2 to 3 mg. a day in meat, and in other foods including milk 2 mg. In addition 4 to 5 mg. of iron would be obtained from the prepared baby cereals such as are routine in our practice. Thus a minimum of 9 mg. of iron would have been provided from the diet alone during the ages of three to six months. Beyond six months more than likely a greater intake than this would have occurred. Sturgeon has shown that 0.8 mg./kg./day (equivalent in a fifteen pound baby to 5 mg. of iron per day approximately) produces nearly maximum hemoglobin accumulation. Since the children in this study were getting in excess of this 5 mg./day in the normal diet, administration of an additional 5 mg. of iron could not be expected to produce a grossly evident increment in hemoglobin concentration in the iron-receiving patients.

It would seem, therefore, that the 25 mg. of ferrous sulfate (yielding 5 mg. of elemental iron daily) in the supplemental vitamin and iron drops, such as were studied, furnished only a *theoretically* desirable iron supplementation to the diet of these babies, for the general dietary management and experience was such that the 5 mg. of added iron was either rejected by an already saturated system or perhaps was partly absorbed and stored away for future use without affecting the hemoglobin concentration in the time observed.

Conclusion and Summary

Under double blind procedure in which neither the physician nor the patient's family knew which preparation did or did not contain iron, multiple vitamin (A.D.C.E.) drops with and without 25 mg. of Ferrous Sulfate were compared on alternate cases in a normal pediatric practice among a prosperous middle class clientele. The study covered periods of five and one-quarter to twelve months, all cases beginning at ages between one and three months. Of the twenty-seven children who finished the study, thirteen in one group and fourteen in the other, there was no difference found between the groups in the average mean hemoglobin concentration at the beginning and end of the study and no significant difference in the average net gain of hemoglobin concentration per case.

It is concluded that, under the conditions of this study, the enrichment of routine supplemental vitamins with 5 mg. of elemental iron as ferrous sulfate cannot be shown materially to improve the hemoglobin concentration of infants in an average of eight months use.

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Anovulatory Ovarian Function

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SINCE Corner[1] first identified anovulatory cycles in rhesus monkeys in 1923, an understanding of their significance, etiology and treatment has evolved slowly. Following these observations, anovulatory menstruation in women was confirmed by premenstrual biopsies. Studies of premenstrual endometria suggest the incidence of anovulatory cycles to be approximately 5 per cent.[2,3] Ages of the patients included in any series would significantly affect the incidence of anovulatory menstruation since this is more common near the menarche and menopause.

Evolution of knowledge of anovulatory ovarian function has identified ovulatory failure with infertility, hypermenorrhea and polymenorrhea, oligomenorrhea, amenorrhea, hirsutism, endometrial carcinoma and ovarian neoplasia.[4-9] Linkage with so many major gynecologic entities has stimulated research efforts related to the diagnosis and treatment of anovulation.

Etiology

Because of the interrelationships which exist between the endocrine glands, dysfunction of any one may result in anovulation. Of the "hyper" states, hyperfunction of the adrenal cortex and hyperthyroidism most commonly inhibit ovulation. More often "hypo" states are involved, e.g., hypothyroidism, hypopituitarism and hypofunction of the ovaries. In general, the "hyper" states result from glandular hyperplasia or functioning tumors. Causes of the "hypo" states are often less well defined but may result from congenital aplasia or hypolasia, infection, anoxia, surgical excision, or defects in endocrine synthesis.

Another category of endocrine imbalance is exemplified by polycystic ovarian disease or the Stein-Leventhal syndrome where anovulation is usually associated with normal endocrine levels. Recently, we described a possible endocrine sequence[11] leading to the development of this syndrome (Fig. 1). Both experimentally and clinically it appears that polycystic disease may result from the continuous exposure of ovaries to a gonadotropin which is predominantly, but not exclusively, follicle stimulating. A succession of follicular phases uninterrupted by ovulation and corpus luteum function results in an accumulation of atretic follicles. Follicular hyperplasia occurs involving both granulosa and theca cell elements with varying degrees of cyst formation. Although within normal range, the estrogen and gonadotropin levels fluctuate more slowly without the rapid increases and decreases characteristic of ovulatory cycles.

Any condition associated with recurrent anovulatory cycles may lead to a point beyond which spontaneous reversal to ovulatory function cannot occur. Recurrent anovulatory cycles are more common during periods of adjustment of pituitary-ovarian relationships, i.e., menarche and early postmenarchal years, following pregnancy and lactation, and approaching menopause. Hypothyroidism appears to predispose to this type of ovarian function.

Effects of Anovulatory Ovarian Function

Physiologic, pathologic, endocrine and anatomic changes may result from anovulatory ovarian function. Although the pattern of uterine bleeding may simulate regular and normal menses, abnormal patterns of bleeding are more common. These range from excessive uterine bleeding, sometimes requiring curettage, to ogliomenorrhea or even amenorrhea.[10,11]

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Endometrial changes are as variable as the patterns of uterine bleeding except for the uniform absence of secretory change. Even when non-ovulating ovaries produce normal levels of estrogen the endometrium

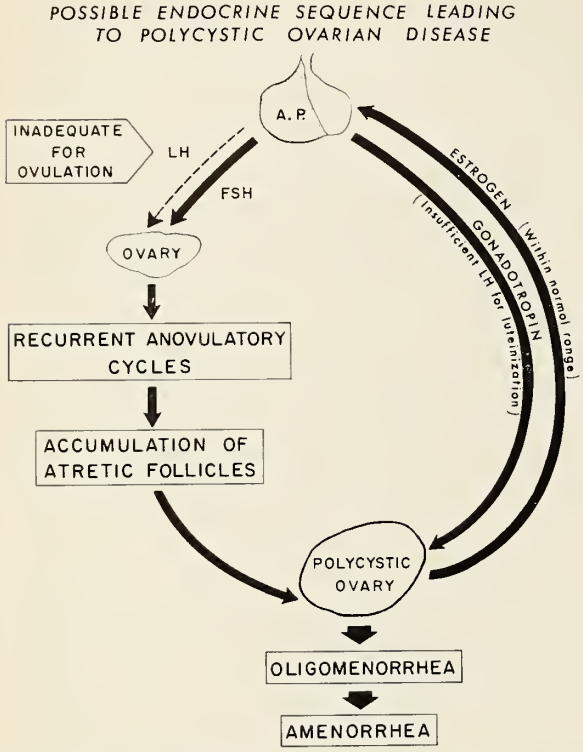


Fig. 1. Diagrammatic representation of endocrine changes leading to polycystic ovarian disease (Stein-Leventhal syndrome). (Courtesy of Evans, T. N., and Riley, G. M., Amer. J. Obstet. Gynec., 80:873, 1960.)

may be atrophic. However, polycystic ovarian disease is usually associated with a proliferative or hyperplastic type of endometrium. In some instances, the hyperplastic change is extreme and has been associated with endometrial carcinoma.[6,7] This has been attributed to the prolonged exposure of the endometrium to fairly constant levels of estrogen without intermittent progesterone stimulation.[10]

Ovaries associated with anovulation may be normal in size, slightly enlarged or markedly enlarged. When recurrent anovulatory cycles result in the accumulation of atretic follicles, some of these follicles usually undergo cystic change. Such ovaries may be entirely normal in size but often show some degree of enlargement. These ovaries generally have a homogeneous, smooth, thickened capsule with follicular cysts packed beneath. This type of ovarian pathology can be associated with hyperfunction of the adrenal cortex. Recently, we reported the association of a thecoma and a theca-granulosa cell tumor in two patients with the classical changes of polycystic disease in the opposite ovaries. Since polycystic ovarian disease is clearly an endocrinopathy, such observations suggest a common endocrine etiology of the ovarian mesenchymomas.

Endocrine Changes

Aberrations in endocrine function are reflected in variations in the endocrine excretory products from the pituitary, adrenal cortex, and ovary. Gonadotropin may be elevated as in primary ovarian failure or the postmenopausal patient, decreased as in pituitary failure or normal in the patient with polycystic ovarian disease. Although the latter is associated with normal levels of total gonadotropin, a qualitative abnormality (relative excess of FSH?) may initiate the endocrine sequence described under etiology.

Normal excretion rates for 17-ketosteroids and pregnanetriol reflect normal adrenal cortical function. Although slight elevations of 17-ketosteroids occur in some patients with the Stein-Leventhal syndrome, we believe any associated adrenal changes are usually secondary. Of interest in this regard is the fact that adrenal enlargement has been observed in association with the experimental production of polycystic ovaries in white rats.[10] Adrenal hyperfunction resulting from either hyperplasia or neoplasia may produce anovulation. In either case marked elevation in 17-ketosteroid excretion is the rule.

Estrogen levels are low or undetectable in Turner's syndrome (congenital ovarian aplasia or hypoplasia) and with primary ovarian failure. Also, estrogen excretion is low with deficiency of pituitary gonadotropin. Although normal cyclic variation does not occur, normal estrogen levels are usually found in polycystic ovarian disease.

As expected in the absence of corpus luteum function, pregnanediol excretion rates are low in all anovulatory patients. Without the thermogenic effects of progesterone, the daily basal body temperature curves are flat. Daily serial vaginal smears are also uniform without cyclic variation in the endocrine stimulation of the vaginal mucosa.

Methods for Detection of Anovulation

Absence of a biphasic daily basal body temperature curve and relatively uniform daily serial vaginal smears stained with the Papanicolaou stain[12] usually suffice in confirming the absence of ovulation. Failure to demonstrate secretory change in endometrial biopsies may

be helpful. Absence of cyclic changes in the fern pattern of cervical mucous and low pregnanediol excretion rates also provide evidence of anovulation.

Indications for Treatment

Infertility is the most common problem that prompts the patient with anovulation to seek medical aid. Dysfunctional uterine bleeding may be the primary reason for attempting restoration of ovulatory cycles. The probable sequence of endocrine events leading to the development of the Stein-Leventhal syndrome suggests that it may be desirable to treat anovulation at an early stage in order to prevent the development of this syndrome. Although an association of endometrial carcinoma and ovarian neoplasms with anovulatory ovarian function have been reported, treatment solely to prevent the development of these complications seems questionable at this time. Hirsutism in association with either hyperfunction of the adrenal cortex or polycystic ovarian disease may serve as an indication for therapy. After restoration of ovulation, the hirsutism usually ceases to progress; but hair already present generally remains unless destroyed by electrolysis. In some instances, excessive hair growth of recent origin in patients with the Stein-Leventhal syndrome will disappear after restoration of ovulatory cycles following ovarian wedge resections.

Treatment

Dramatic responses to treatment may be expected in those patients with polycystic ovarian disease who are subjected to bilateral ovarian wedge resections. Approximately one third of ovaries of normal size is excised. When the cystic ovaries are enlarged, more than one third may be excised so that the residual ovary approximates normal. Following operation, there is a drop of estrogen with a concurrent rise in gonadotropin. This is followed by maturation and dominance of a single Graafian follicle leading to restoration of normal pituitary-ovarian relationships resulting in ovulation and menstruation. With careful selection of patients for operation by preoperative endocrine evaluation, restoration of ovulatory ovarian function can be accomplished in about 90 per cent of these patients. Patients with either low estrogen, excessive gonadotropin levels or anovulation secondary to hyperfunction of the adrenal cortex are not likely to respond to ovarian surgery.

Whereas hirsutism is the only evidence of masculinization in patients with polycystic ovarian disease, and this in only about 50 per cent, those with anovulation secondary to adrenal cortical hyperplasia usually present more marked evidence of masculinization. Administration of cortisone or other corticoids may be followed by ovulatory cycles and conception, particularly in those patients with milder degrees of adrenal hyperfunction. In anovulatory patients with normal 17-ketosteroid levels and no evidence of masculinization we have been unable to induce ovulation with cortisone. With high doses of cortisone, e.g., 100 mg. per day, the 17-ketosteroid excretion level can be brought down to normal range within a few days. Thereafter, lower maintenance doses can be employed depending on the individual response.

Anovulatory function may be associated with either hypothyroidism or hyperthyroidism although the former is more commonly incriminated. The precise thyroid-ovarian relationships are still ill-defined. Yet, the fact that such relationships do exist can no longer be disputed. Deviation from normal levels of thyroid activity may be associated with anovulation, abnormal uterine bleeding and varying degrees of oligomenorrhea and amenorrhea. In some instances, hypothyroidism may have been the precipitating cause of recurrent anovulatory cycles leading to the development of polycystic ovarian disease. In experimental animals, it has been demonstrated that alteration in thyroid function modifies ovarian response to gonadotropic stimulation.[13] Empiric administration of thyroid has been advocated.[14] Although some support remains for such use of exogenous thyroid alone or in combination with other therapy in the treatment of anovulatory ovarian function, clear evidence of its benefit in the euthyroid patient is lacking.[15] This should not detract from the value of such therapy where clinical and laboratory evidence indicates some order of thyroid deficiency.

Other metabolic disorders may be associated with anovulation with wide variation in individual response. Among this group of disorders are obesity, inanition and diabetes mellitus. Restoration of a normal nutritional status and optimum control of the anovulatory diabetic may result in the restoration of ovulatory cycles.

Among the pituitary dysfunctions amenable to therapy are the functioning adenomas (acidophilic, basophilic and chromophobe). Surgical excision of the tumor may result in restoration of normal pituitary-ovarian relationships and ovulation.

The role of hypothalamic and psychogenic factors in the production of anovulation is poorly understood. Nevertheless, menstrual abnormalities and anovulation do occur in some patients with psychiatric disorders.

If the anovulatory function is of relatively short duration, ovulation may follow psychotherapy. In cases of prolonged anovulatory function, irreversible polycystic ovarian disease may result; and, in the presence of normal endocrine levels, the patient may respond to ovarian wedge resections.

Other disorders relating to the general health of the individual may be direct or indirect factors in the production of anovulation. Both systemic and pelvic infections may arrest ovulation with restoration of normal function after treatment.

Aplasia, hypoplasia and primary failure of the ovaries have the poorest prognosis. Future improvement of the status of most of these patients seems unlikely unless intraperitoneal ovarian transplants become successful.

The future appears less hopeless for those patients with anovulation associated with pituitary failure reflected only by inadequate levels of gonadotropin. In a few (e.g., those with postpartum amenorrhea) spontaneous recovery may occur. Pituitary and ovarian x-radiation have been used,[16] but their hazards and efficacy are debatable. Induction of ovulation in experimental animals has been accomplished by the administration of exogenous gonadotropin.[17] Comparable results in human beings appear imminent with the rapid improvement in available parenteral gonadotropin preparations.

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Pre-Game Meal

Liquid, calorie-rich pregame meals appear to offer numerous benefits for athletes before important competitive events, according to a field trial conducted at the University of Nebraska. Dr. Kenneth D. Rose and associates devised a liquid meal which was served at 10:30 a.m. during the fall training and football season of 1960 in place of the standard solid food pregame meal. The traditional steak dinner was served following the game.

The new liquid meal passed through the stomach in less than two hours. It did not differ from the conventional solid meal with respect to subsequent hunger—total calories on both solid food and liquid regimens were virtually the same. Because the liquid meal had traversed the stomach and small bowel by game time, unlike the solid pregame meal eaten traditionally four hours before game time, muscular activity was not in conflict with digestion. Muscular cramps and game-time vomiting were completely eliminated. Weight remained constant; strength and endurance were improved.

The boys also liked the new feeding program. When the players were polled to determine whether they wished to return to the solid pregame meal, 51 of 52 players voted for the liquid regimen, their reason being "a general sense of improved well being."—K. D. Rose, et al: A liquid pregame meal for athletes. J.A.M.A., 178:130 (Oct. 7) 1961.

1962 Problems

The new year, 1962, is upon us, and the medical profession must take thought of the attitudes, problems and frustrations which it will face during this year. The most important problem to all of us is care of the aged, other than the purely geriatric problems. This care has always been a foremost project. One of the first medical concepts we remember is hearing the older doctors commenting upon the fact that when laboring people—especially farmers—retired and moved into town, they very rarely lived more than five years. In those days, one of the primary requisites in any family was care for aged parents and relatives, with provisions for housing, food, shelter, clothing and medical attention.

That philosophy of living was still present when the planning and development of prepaid medical care insurance attracted the attention of the medical profession. Leaders, almost without exception, as they developed the Blue Shield programs in the various states and areas, had one definite provision. In whatever group the sale was being made, no one was to be denied coverage because of age if he was in an eligible group, and no one was eliminated from the group because of age or health condition. In almost every group, when the oldster retired, he could continue his membership by paying premiums direct.

Then came compulsory retirement with its problems of coverage, the public's realization of problems of the aged and demands for special consideration. Most of the Blue Shield plans already had provisions at that time whereby the retirees could go into a special group and continue their coverage.

About that time, the AMA House of Delegates requested the various Blue Shield plans to set up a special program for the aged. That was done almost universally with rates somewhat reduced, coverages not quite so broad, and sales open to anyone no matter what his age or health condition. A special sales campaign was instituted at a designated time each year so that no one was denied the privilege of subscribing for this coverage, especially in the lower income group.

The Aging's Special Needs and Problems

The last political campaign revolved very largely on care of the aged. One political group proposed that everybody over 65 be grouped automatically into social security and be given "medical care." The medical profession and many other groups saw in this an extension of socialized medicine, another "Forand Bill," and opposed it. The advocates of that program kept promising "medical care" for the 16½ million over 65. They failed to tell the public that in this term "medical care," they did not include any *medical* care. All

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they included was hospital care with no provision to pay doctors of medicine for their services with the exception of anesthesiologists, pathologists, radiologists and physiologists in the hospital. To repeat, these services were available only when and as these specialists were employes of a hospital approved by the Secretary of HEW. Spokesmen failed also to tell the public that these older people would have to contribute $10 a day for the first nine days for each hospital admission, and the first $20 of diagnostic service. We are well into the year 1962, and everybody has been placed on notice that this Social Security vehicle will be pushed through, if possible.

Again, the medical profession has been placed in the position of defending itself and opposing legislation which has become popularized. Throughout the years, the medical profession has advocated many worthwhile and contsructive legislative programs, for which they received no credit—only the appellation of "opposers" of these socialistic programs which are forced upon us and have been during the years.

Proposed Legislation

The medical profession and the AMA still have many programs which they have supported and have stimulated. One is opposition to the provision in the Social Security Act by which a person on retirement benefits is limited in the amount he can earn when trying to augment the inadequate amount he receives from his social security benefits. We have always believed, and still do, that that restriction should be removed. Some time ago, the *Saturday Evening Post* had an editorial calling for removal of that restriction as did the *U. S. News and World Report*. So we are in good company.

Inflation

Still considering care for the aged, the medical profession might well take up the question of inflation. During the 1930's, medical statesmen applied the insurance principle to prepayment of medical and hospital care. During that period, the federal government re-evaluated the price of gold, making the new dollar value actually 49c and burying its gold at Fort Knox. That is ancient history. The value of our dollar has not been stable. Gold is still worth $35 an ounce, but our dollar has decreased in purchasing value 50 per cent in the last 20 years. In one of its reports, the federal government recently announced that in the first ten months of 1961 the actual purchasing power of the dollar had been reduced 0.7 per cent. What does this do to the dollars we have saved in the bank, or U. S. Savings Bonds, or the limited "dollar income" which was set up for millions of our people in various ways such as indemnities or annuities, but very specifically by the federal government in its social security fixed dollar payments.

Our older patients, many of them old and valued friends, also are getting desperately disturbed. We hear expressions of concern almost every day. They have limited incomes—a certain specific number of dollars coming in each month and that dollar buying less and less each month. Every doctor who is earning his living by caring for his patients, and especially his retired and limited income patients, must face this problem which is not of our choosing. We are victims the same as our patients.

We believe the value of the dollar should become stabilized. We believe that is about as important an action as is possible to suggest. We don't know how to handle it, but there is nothing more important to a vastly and rapidly increasing number of our population.

On November 6, in one of the "investor's guides" in the newspapers, the question was asked, "How does the little fellow defend himself against the impending devaluation of the dollar?" The reply, "There are a lot of eminent economists contending that the gold standard is still the best base for our currency. Maybe so, but I must point out that in the last 25 years gold has been fixed at $35 an ounce, but that has not prevented our dollar from losing more than half its buying power."—Sam Schultsky.

The federal government also publishes a listing of the cost-of-living rate. To be just and equitable, the payments for social security benefits could be graduated according to this cost of living scale. That would solve some of the difficulties. It would not help the dollar in general circulation but probably would have a tendency to stablize its purchasing power.

Right along this same general topic, the government has other monies which are losing value—such as the huge amounts invested in government savings bonds with the promise of 2½ or 3 per cent accumulation. In paying these bonds, the government should recognize the cost of living index and augment them by that amount. Investors would be encouraged and the money they get back would at least buy as much as it would when they invested it.

There is nothing illegal or even new in these suggestions. For years, labor has fixed its compensation

on the cost-of-living index. It is time the medical profession and especially our aging patients be considered.

Third Medical School in Michigan

Michigan State University Trustees, at a meeting November 17, formally approved a proposal setting up the beginnings of a third medical school in Michigan at Michigan State University. It contemplates establishing a two-year course in the basic and allied sciences. The students would expect to attend other schools operating four-year courses, for their last two years.

This is the outcome of a study ordered a year ago by the Trustees, financed by a grant of $167,000 from the Commonwealth Fund, citing the tremendous lack of medical training in Michigan, and the U. S. Public Health Services having listed Michigan as one of the eight states where new medical schools should be established. The University of Michigan study under McNerney mentioned this lack but suggested the first activity be increasing Wayne State University up to its capacity.

Wayne is now accepting 125 students as freshmen entering each year. The Michigan State Medical Society has had a committee studying this problem for a number of years, and was active in securing the increased allotments to Wayne State University Medicay School. That committee has also suggested that Wayne be given the first immediate attention.

The 1961 House of Delegates approved the following report of its Reference Committee on Proposed Institute of Biology and Medicine at MSU:

"That before the taxpayers of State of Michigan are burdened with high cost of establishing a wholly new school, the State Legislature should fulfill its committments to the present two schools of medicine and expand their existing facilities to meet the alleged immediate need for graduating more doctors of medicine."

Educators especially interested in medical education have also considered for years where to locate the third medical school in Michigan. Many places have been considered and their facilities studied. In the Wayne County area, there is a hospital at Eloise of more than 10,000 beds, all of which under general considerations would be suitable for teaching purposes. The University of Michigan and Wayne State have been utilizing some facilities there for several years but only incompletely. Recently, cooperation and understandings have been established by which each school could use more of these facilities.

When the time comes that a third school can be estbalished, this is an ideal teaching hospital where clinical instruction could be established and expanded. A school could be established by Michigan State University through its Oakland Branch. This proposition would utilize the increased facilities, would meet requirements of both the University of Michigan and Wayne State University and would provide for Michigan State University to have its medical school through the Oakland Branch.

Some doctors have considered this question and utilization of this material over a period of ten to fifteen years. This move by Michigan State might ultimately stimulate arrangements and understandings and activities necessary to bring about the new facility. The Michigan State Medical Society committee has been working on this for years, and suggestions have come from various sources, but recently two stimulating reports have seemed to mesh into the general program. The most general objection to this question is that there can be no serious consideration of a third medical school until the State of Michigan becomes solvent and can expand Wayne State Medical School to its committed size.

DOCTORS OF MEDICINE AND OSTEOPATHY

John G. Slevin, M.D., Chairman of the MSMS House of Delegates Committee to Study the Relationships of Doctors of Medicine and Osteopathy, suggests that interested physicians write to his committee expressing their views either pro or con. Such information which the committee would receive from the grass roots would be most helpful. The committee would like this information to help formulate their report.

Address Dr. John G. Slevin, 1403 David Broderick Tower, Detroit, Michigan.

HEART BEATS

(This material is provided by the Michigan Heart Association)

Mark Your Calendar

Saturday, February 10, 1962
Statler-Hilton Hotel, Detroit

These are the speakers at the Michigan Heart Association scientific sessions:

A.M.

9:00 E. Cowles Andrus, M.D.
"Differential Diagnosis of Chest Pains"

9:45 J. Scott Butterworth, M.D.
"Auscultation of the Heart"

10:30 Intermission

10:45 F. D. Johnston, M.D.
"Electrocardiogram in Coronary Disease"

11:15 F. Mason Sones, Jr., M.D.
"Angiocardiography in Coronary Artery Disease"

M.

12:00 Luncheon—Annual Meeting—Election of Board of Trustees

P.M.

2:00 PANEL: "Unexplained Big Heart"
Melvin Kaplan, M.D.
"Concept of Autoantibodies to Heart"
Otto Saphir, M.D.
"Pathological Aspects"
Panel Discussion: Doctors Andrus, Butterworth, Johnston, Kaplan, Saphir, Sones, and Robert Ziegler.

New Staff Appointment

Hubert H. Baker, Flint, is a new member of the Michigan Heart Association staff as program director.

Mr. Baker left the position of associate secretary of the Council of Social Agencies in Flint to join MHA. Prior to his service in Flint he spent 11 years in health and social agency work with emphasis in the field of mental health. Among the positions he has held are executive director of the Linn County Medical Center in Iowa, community coordinator for Mental Health in the Department of Public Welfare, Pittsburgh, and social work in the Allegheny County Health Department, also in Pittsburgh.

Mr. Baker served in the Navy during World War II and in the Army during the Korean campaign. He has a B.A. and M.A. from Michigan State University, and a Master of Social Work from the University of Denver. He also has a Master's Degree in Public Health from the University of Pittsburgh.

Work Evaluation Unit for Cardiacs

The Rehabilitation Institute, Detroit, is operating a Work Evaluation Unit supported by a grant from the Michigan Heart Association. The Unit is functioning on a pilot basis at the present time.

Each cardiac patient referred to the Unit receives an evaluation of the degree of physical limitation as related to his work capacity. Members of the evaluation team include specialists in cardiology, physical medicine and psychology, social work and vocational guidance. After members of the Unit team have seen the patient separately, and EKG, vital function and other tests have been completed, the team meets in conference to discuss the case and arrive at recommendations for the patient. The findings are interpreted to the patient and a full report is sent to the referring physician.

The Unit makes evaluation only; the referring physician retains medical management. All patients seen at the Unit must be referred by a physician.

Receives Award of Merit

Warren B. Cooksey, M.D., Detroit, a founder and first President of the Michigan Heart Association, was presented with an Award of Merit at the American Heart Association's semi-annual Board of Directors meeting at Gettysburg, Pennsylvania. J. Scott Butterworth, M.D., of New York, President of the American Heart Association, bestowed the honors at a luncheon. The Board held its meeting in Gettysburg in tribute to its Honorary Chairman, Former President Dwight D. Eisenhower, who was present for a part of the morning session.

In addition to being the Michigan Heart Association's first president, Dr. Cooksey is a member of the Board of Directors of AHA and has served on many committees of both AHA and MHA since 1949. In 1948 he was President of the Detroit-Ann Arbor Heart Club and Chairman of the Michigan State Medical Society Study Committee on the organization of a heart association in Michigan.

Michigan Clinical Institute, 1962

Refresher Course

Sheraton-Cadillac Hotel, Detroit

WEDNESDAY-THURSDAY-FRIDAY, FEBRUARY 28, MARCH 1-2, 1962

G. B. Saltonstall, M.D., Charlevoix
General Chairman

Every member of the Michigan State Medical Society is invited—urged—to attend the 1962 Michigan Clinical Institute. Once again, it will be held in Detroit at the Sheraton-Cadillac Hotel. This excellent refresher course will begin Wednesday, February 28 and end on Friday, March 2, at noon.

The total program has been planned to help the practicing physician in his daily work.

Information

- **HEADQUARTERS**—Sheraton-Cadillac Hotel, Detroit; Assemblies and Exhibits on Fourth Floor; News Room on Fifth Floor (Michigan Room)

- **REGISTER**—Fourth Floor—as soon as you arrive.
  Hours: Tuesday, February 27, 10:00 a.m. to 5:00 p.m.
  Wednesday, February 28, 1:45 a.m. to 5:00 p.m.
  Thursday, March 1, 7:45 a.m. to 5:00 p.m.
  Friday, March 2, 7:45 a.m. to 1:00 p.m.

- **NO REGISTRATION FEE** for members of MSMS and other State Medical Associations, AMA, and Canadian Medical Association.

- **GUESTS**—Members of any state medical association, AMA, or CMA members from any province of Canada, and physicians of the Army, Navy, and U. S. Public Health Service are invited to attend as guests. No registration fee. Please present credentials at the registration desk.

  Bona fide doctors of medicine who are associate or probationary members of Michigan county medical societies or who are serving as residents or interns, if vouched for by the president or secretary of the county medical society in whose jurisdiction they are located, will be registered as guests with no registration fee. Please present credentials at the registration desk.

- **MICHIGAN DOCTORS OF MEDICINE** in practice but who are not members of MSMS, if listed in the American Medical Association Directory, may register as guests upon payment of $25.00. This amount will be credited to them toward dues in the Michigan State Medical Society for 1962 only, provided they subsequently are voted into membership by the county medical society in whose jurisdiction they practice.

- **TELEPHONE SERVICE**—Local and long distance telephone service will be available in the Sheraton-Cadillac Hotel, fourth floor. In case of emergency, physicians will be paged from the meetings by an announcement on the screen. Call the Sheraton-Cadillac Hotel, WOodward 1-8000, and ask for the Michigan Clinical Institute extensions on the fourth floor.

COLOR TV PROGRAM

beamed to the Grand Ballroom, Sheraton-Cadillac Hotel, through the cooperation of the staff of Detroit's Providence Hospital and the Smith, Kline and French Laboratories of Philadelphia.
Wednesday-Thursday-Friday, February 28, March 1-2, from 10:30 a.m. to 12:30 p.m. (See pages 91, 94, 96, for complete program.)



G. B. Saltonstall, M.D.

• **G. B. SALTONSTALL, M.D.** of Charlevoix, is General Chairman of Arrangements for the 1962 Michigan Clinical Institute.



John W. Sigler, M.D.

• **JOHN W. SIGLER, M.D.** of Detroit, is Chairman of the Program Committee for the 1962 Michigan Clinical Institute.



Donald H. Kaump, M.D.

• **DONALD H. KAUMP, M.D.** of Detroit, is Chairman of the Committee on Color TV Program for the 1962 Michigan Clinical Institute.

• **CHECKROOM** is available in the Sheraton-Cadillac Hotel, fourth floor, next to the Grand Ballroom.

• **GUEST SPEAKERS** are very respectfully requested not to change time of their lecture with another speaker without the approval of the Committee on Program. This request is made in order to avoid confusion as well as disappointment on the part of members of the audience.

• **TECHNICAL AND SCIENTIFIC EXHIBITS**—Seventy-five interesting and instructive displays will open on Wednesday-Thursday-Friday, February 28, March 1-2, at 9:30 a.m. The exhibits will close at 5:00 p.m. except on Friday when the show closes at 1:00 p.m. Frequent intermissions to view the exhibits have been arranged daily before, during, and after the assemblies.

THERE IS SOMETHING of interest or education in the large exhibits of technical and scientific displays. SAVE AN ORDER FOR THE EXHIBITOR AT THE MICHIGAN CLINICAL INSTITUTE.

• **MUCH THAT IS NEW AND INTERESTING WILL BE FOUND IN THE MCI EXHIBIT.**

PROGRAM OF COLOR MOTION PICTURES

Roche Laboratories will present a motion picture program in the Normandie Room of the Sheraton-Cadillac Hotel:

Wednesday, February 28—3:00-4:00 p.m.
"Control of Severe Pain"
"Calming Effects of Librium"

Thursday, March 1—3:00-4:00 p.m.
"Control of Severe Pain"
"Calming Effects of Librium"

Friday, March 2—10:00-10:30 a.m.
"Conization of the Cervix"
"Calming Effects of Librium"

• **POSTGRADUATE CREDITS** are given to every MSMS member who attends the Michigan Clinical Institute. Notify John M. Sheldon, M.D., Chairman, Department of Postgraduate Medicine, University of Michigan Medical School, Ann Arbor.

• **PARKING**—Do not park on Detroit's streets. Inside parking at a convenient distance from the Sheraton-Cadillac Hotel is available at the DAC Garage, 1754 Randolph, the Grand Circus Garage, 1776 Randolph, and the Book Tower Garage, 333 State.

• **INFORMATION OF PRACTICAL VALUE IN DAILY PRACTICE** will be found at the Michigan Clinical Institute. All subjects on the Institute Program are applicable to clinical medicine. They stress diagnosis and treatment, usable in everyday practice.

THE "BLOCK SYSTEM" at the 1962 MICHIGAN CLINICAL INSTITUTE

WEDNESDAY, FEBRUARY 28
General Practice Day
Morning—Surgery
Afternoon—Trauma
Evening—Psychiatry

THURSDAY, MARCH 1
Morning—Heart and Rheumatic Fever
Afternoon—Internal Medicine and Cancer
Evening—Geriatrics

FRIDAY, MARCH 2
Morning—Obstetrics-Gynecology

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HOTEL RESERVATIONS
MICHIGAN CLINICAL INSTITUTE

Detroit, February 28, March 1-2, 1962

The reservation blank below is for your convenience in making your hotel reservation in Detroit. Please send your application to B. Van De Keere, Sales Office, Sheraton-Cadillac Hotel, Detroit 31. Mailing your application NOW will be of material assistance in securing the type of hotel accommodations you desire.

As very few singles are available, registrants are requested to cooperate with the Committee on Hotels by sharing a room with another registrant, when convenient.

Committee on Hotels
Michigan Clinical Institute
c/o Sheraton-Cadillac Hotel
Detroit 31, Michigan
Attention: B. Van De Keere

Please make hotel reservation(s) as indicated below:
.....Single Room(s) .....Double room(s) for .....persons .....Twin-bedded Room(s) for .....persons. Arriving March ..... hour ..... A.M. ..... P.M. .....

Hotel of first choice: .....

Second choice: .....

Names and addresses of all applicants including person making reservations:

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Signed: .....

Address: .....

City: .....

Date: .....

Michigan Clinical Institute, 1962

MCI SPEAKERS



Michael J. Brennan, M.D.



George S. Fisher, M.D.



Vainutis K. Vaitkevicius, M.D.



Donald R. Korst, M.D.



Carl F. List, M.D.



Carl A. Brinkman, M.D.



Arthur B. Eisenbrey, Jr., M.D.



Maurice H. Seevers, M.D.

Program

WEDNESDAY
February 28, 1962

7:45 a.m. to 5:00 p.m.—**REGISTRATION**—Fourth Floor
8:00 a.m. to 9:00 a.m.—**THREE DISCUSSION GROUPS**—Rooms on the Fifth Floor
9:00 a.m. to 5:00 p.m.—**ASSEMBLY PROGRAM**—Grand Ballroom
9:30 a.m. to 5:00 p.m.—**EXHIBITION**—Fourth Floor
10:30 a.m. to 12:30 p.m.—**COLOR TV**—Grand Ballroom

DISCUSSION GROUPS ON

I "CHEMOTHERAPY IN MALIGNANT DISEASES"

Leader:
Michael J. Brennan, M.D., Detroit
Physician-in-Charge, Division of Onocology, Henry Ford Hospital; Research Associate, Detroit Institute of Cancer Research

Panelists:
George S. Fisher, M.D., Detroit
Chief, Division of Medicine, The Grace Hospital; Section of Dermatology, Detroit Hospital

Vainutis K. Vaitkevicius, M.D., Detroit
Associate Physician, Onocology Division, Henry Ford Hospital; Research Associate, Detroit Institute of Cancer Research

Donald R. Korst, M.D., Ann Arbor
Assistant Professor of Medicine, University of Michigan Medical School; Head, Hematology Section, Veterans Administration Hospital and St. Joseph Mercy Hospital

II "TODAY'S RADIOISOTOPE USE IN CENTRAL NERVOUS SYSTEM AND THE EYE"

Leader:
Carl F. List, M.D., Grand Rapids

Panelists:
Carl A. Brinkman, M.D., Ann Arbor
Senior Clinical Instructor, Department of Surgery, Section of Neurosurgery, University of Michigan Medical School

John P. Champion, M.D., Grand Rapids

Arthur B. Eisenbrey, Jr., M.D., Detroit
Associate Neuro-surgeon, Henry Ford Hospital

III "DRUGS FOR THE RELIEF OF PAIN"

Leader:
Maurice H. Seevers, M.D., Ann Arbor
Department of Pharmacology, University of Michigan Medical School

Panelists:
Edgar A. Kahn, M.D., Ann Arbor

Robert W. Talley, M.D., Detroit
Associate Physician, Division of Oncology, Henry Ford Hospital

Paul R. Dumke, M.D., Detroit
Chairman, Department of Anesthesiology, Henry Ford Hospital

FIRST ASSEMBLY

Grand Ballroom

Chairman: G. B. Saltonstall, M.D., Charlevoix
Secretary: D. A. Bowman, M.D., Bay City

GENERAL PRACTICE DAY
SURGERY

9:00 A.M.

"TREATMENT OF CARCINOMA OF THE BREAST: THE PLACE OF ADJUVANT THERAPY"

Rudolf J. Noer, M.D., Louisville, Kentucky
Professor and Chairman, Department of Surgery, University of Louisville School of Medicine

9:30 A.M.

"GALLSTONES"

Alfred M. Large, M.D., Detroit
Department of Surgery, Wayne State University College of Medicine and Grace Hospital

10:00 A.M.

INTERMISSION TO VIEW EXHIBITS

10:30 A.M.

COLOR TELEVISION PROGRAM—beamed to the Grand Ballroom, Sheraton-Cadillac Hotel, through the cooperation of the staff of Detroit's Providence Hospital and Smith, Kline and French Laboratories of Philadelphia.

10:30 A.M.

"ATHLETIC INJURIES"

Moderator:
James S. Feurig, M.D., East Lansing
Olin Memorial Health Center, Michigan State University
(Panelists to be announced)

12:00 M.

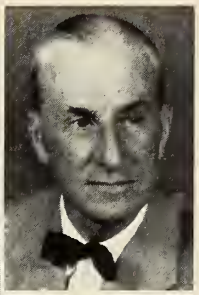
"TREATMENT OF ADVANCED SKIN CANCER"

Nicholas S. Gimbel, M.D., Detroit
(Panelists to be announced)

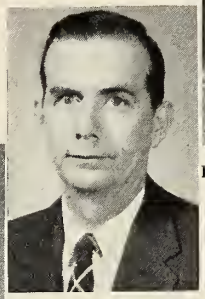
12:30 P.M.

End of color television program

Luncheon



Edgar A. Kahn, M.D.



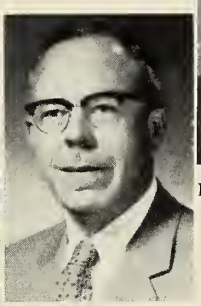
Robert W. Talley, M.D.



Paul R. Dumke, M.D.



Rudolf J. Noer, M.D.



Alfred M. Large, M.D.



Nicholas S. Gimbel, M.D.

SECOND ASSEMBLY

Grand Ballroom

Chairman: J. L. Posch, M.D., Detroit
Secretary: Howard Robinson, M.D., Detroit

GENERAL PRACTICE DAY
TRAUMA

1:30 P.M.

"TETANUS ANTITOXIN REACTIONS: NEW METHODS OF DIAGNOSIS AND TREATMENT"

Carl E. Arbesman, M.D., Buffalo, New York
Assistant Clinical Professor of Medicine; Associate in Immunology, University of Buffalo School of Medicine

2:00 P.M.

"EXPERIENCES WITH FROZEN WHOLE BLOOD AND BLOOD FRACTIONS IN MASSIVE TRANSFUSIONS"

Captain Lewis L. Haynes, MC, Chelsea, Massachusetts
Executive Officer and Director of Research, U. S. Naval Hospital



Carl E. Arbesman, M.D.



Capt. Lewis L. Haynes, MC



GEORGE L. CRIKELAIR, M.D.



RAYMOND M. RICE, M.D.



RAYMOND W. WAGGONER, M.D.



MATHEW ROSS, M.D



ROSSER L. MAINWARING M.D.



EDWIN M. KNIGHTS, JR., M.D.



ROBERT E. LITMAN, M.D.

2:30 P.M.

"ABDOMINAL INJURIES DUE TO BLUNT TRAUMA"

THOMAS B. PATTON, M.D., Birmingham, Alabama
Associate Professor of Surgery, Medical College of Alabama

3:00 P.M.

INTERMISSION TO VIEW EXHIBITS

4:00 P.M.

"FACIAL INJURIES"

GEORGE L. CRIKELAIR, M.D., New York, New York
Director, Plastic Surgery Service, Presbyterian Hospital; Professor of Clinical Surgery, Columbia University College of Physicians and Surgeons; Attending Surgeon, Presbyterian Hospital

4:30 P.M.

PHARMACEUTICAL LECTURE
"THE DRUG THAT ALWAYS FAILS"

RAYMOND M. RICE, M.D., Indianapolis, Indiana
Vice President, Eli Lilly and Company

5:00 P.M.

End of Second Assembly

WEDNESDAY EVENING

February 28, 1962

Grand Ballroom

8:00 P.M.

Symposium on "PSYCHIATRIC EMERGENCIES"

The diagnosis, management, and treatment of a variety of psychiatric emergencies are among the most demanding responsibility encountered by the practicing physician. The Michigan State Medical Society is pleased to announce that arrangements have been made for a professional program devoted entirely to this subject and we have been fortunate in obtaining the expert services of four physicians—all psychiatrists with a strong interest and great experience in psychiatric emergencies—to present concisely and in practical terms, a number of the problems related to this most difficult subject.

PROGRAM

Moderator: RAYMOND W. WAGGONER, M.D., Ann Arbor
Chairman, Department of Psychiatry and Director, Neuropsychiatric Institute, University of Michigan Medical School

"Recognition of Psychiatric Emergencies in General Practice"

MATHEW ROSS, M.D., Washington, D. C.
Medical Director, American Psychiatric Association

"Some Approaches to the Treatment of Psychiatric Emergencies"

ISRAEL ZWERLING, M.D., New York City
Associate Professor of Psychiatry, Albert Einstein College of Medicine; Associate Director of Psychiatry of Bronx Municipal Hospital Center, and Director of Division of Social and Community Psychiatry

"Emergency Response to Potential Suicide"

ROBERT E. LITMAN, M.D., Beverly Hills, California
Psychiatrist and Director of Suicide Prevention Center, Los Angeles, California

THURSDAY
March 1, 1962

7:45 a.m. to 5:00 p.m.—**REGISTRATION**—Fourth Floor
8:00 a.m. to 9:00 a.m.—**THREE DISCUSSION GROUPS**—Rooms on the Fifth Floor
9:00 a.m. to 5:00 p.m.—**ASSEMBLY PROGRAM**—Grand Ballroom
9:30 a.m. to 5:00 p.m.—**EXHIBITION**—Fourth Floor
10:30 a.m. to 12:30 p.m.—**COLOR TV**—Grand Ballroom

DISCUSSION GROUPS ON

I "LABORATORY AIDS IN PRACTICE"

Leader:
Rosser L. Mainwaring, M.D., Dearborn
Pathologist and Director of Laboratories, Oakwood Hospital

Panelists:
Edwin M. Knights, Jr., M.D., Flint
Director of Pathology Department, Hurley Hospital
Robert D. Johnson, M.D., Ann Arbor

II "TODAY'S RADIOISOTOPE USE IN HEART, KIDNEY, LIVER, AND SPLEEN"

Leader:
John S. De Tar, M.D., Milan
Board Member, Michigan Medical Service

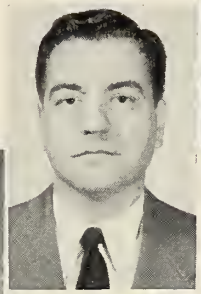
Panelists:
Henry N. Wagner, Jr., M.D., Baltimore, Md.
Assistant Professor of Medicine and Radiology, The Johns Hopkins University School of Medicine
Thomas P. Haynie, M.D., Ann Arbor
Instructor in Internal Medicine; Assistant Coordinator for the Clinical Radioisotope Unit, University Hospital
Edward A. Carr, Jr., M.D., Ann Arbor
Associate Professor of Internal Medicine and Associate Professor of Pharmacology

III "NEW FUNGICIDAL AGENTS"

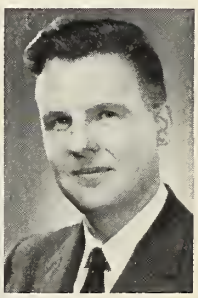
Leader:
Clarence S. Livingood, M.D., Detroit
Chairman, Department of Dermatology, Henry Ford Hospital

Panelists:
John N. Grekin, M.D., Detroit
Assistant Professor of Dermatology, Wayne State University College of Medicine; Attending Dermaologist at Children's Hospital of Michigan and Sinai Hospital
Eugene A. Hand, M.D., Saginaw
Dermatologist
E. Richard Harrell, M.D., Ann Arbor
Professor, Department of Dermatology, University of Michigan Medical Center

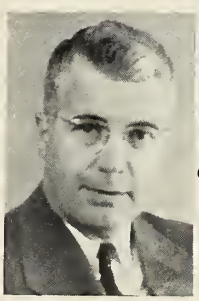

John S. De Tar, M.D.

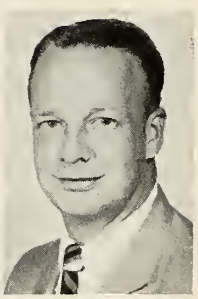

Henry N. Wagner, Jr., M.D.


Thomas P. Haynie, M.D.


Edward A. Carr, Jr., M.D.


Clarence S. Livingood, M.D.


Eugene A. Hand, M.D.


E. Richard Harrell, M.D.

THIRD ASSEMBLY

Grand Ballroom

Chairman: S. E. Chapin, M.D., Dearborn
Secretary: M. C. Kozonis, M.D., Pontiac

HEART AND RHEUMATIC FEVER

9:00 A.M.

"AN INTERNIST'S OBSERVATIONS ON THE PATHOLOGY OF THE CARDIAC CONDUCTION SYSTEM"

Thomas N. James, M.D., Detroit
Chief of Section on Cardiovascular Research, Henry Ford Hospital



Alan P. Thal, M.D.



Noyes L. Avery, Jr., M.D.



Franklin D. Johnston, M.D.



Garfield G. Duncan, M.D.



J. Edward Berk, M.D.



George H. Agate, M.D.



Isadore N. Dubin, M.D.



Keith S. Henley, M.D.

9:20 A.M.

"CORONARY ARTERIOGRAPHY IN ARTERIOSCLEROTIC DISEASE OF THE HEART"

Alan P. Thal, M.D., Detroit
Penberthy Professor of Surgery; Chairman of Department of Surgery, Wayne State University College of Medicine

9:40 A.M.

"TIP-OFFS IN THE OFFICE DETECTION OF CONGENITAL HEART DISEASE"

Noyes L. Avery, Jr., M.D., Grand Rapids
Blodgett Memorial Hospital Cardiac Study Program

10:00 A.M.

INTERMISSION TO VIEW EXHIBITS

10:30 A.M.

COLOR TELEVISION PROGRAM—Beamed to the Grand Ballroom, Sheraton-Cadillac Hotel, through the cooperation of the staff of Detroit's Providence Hospital and Smith, Kline and French Laboratories of Philadelphia.

"TECHNIQUES FOR CARDIAC DIAGNOSIS"

Moderator:
Franklin D. Johnston, M.D., Ann Arbor
Professor of Internal Medicine, University of Michigan Medical School

(Panelists to be announced)

12:30 P.M.

End of color television program

Luncheon

FOURTH ASSEMBLY

Grand Ballroom

Chairman: H. A. Towsley, M.D., Ann Arbor
Secretary: J. W. Hubly, M.D., Battle Creek

INTERNAL MEDICINE AND CANCER

1:30 P.M.

"PERSPECTIVES IN THERAPY OF DIABETES"

Garfield G. Duncan, M.D., Philadelphia, Pennsylvania
Professor of Medicine, University of Pennsylvania School of Medicine; Director, Division of Medicine, Pennsylvania Hospital; Director, Division of Medicine, Benjamin Franklin Clinic of Pennsylvania Hospital

2:00 P.M.

Panel on "HEPATITIS"

Moderator:
J. Edward Berk, M.D., Detroit
Wayne State University College of Medicine and Sinai Hospital of Detroit

Panelists:
George H. Agate, M.D., Lansing
Isadore N. Dubin, M.D., Philadelphia, Pennsylvania
Professor and Chairman, Department of Pathology, Woman's Medical College of Pennsylvania
Keith S. Henley, M.D., Ann Arbor
Associate Professor, Department of Internal Medicine, University of Michigan Medical School
I. Wm. McLean, Jr., M.D., Detroit

3:00 P.M.

INTERMISSION TO VIEW EXHIBITS

4:00 P.M.

MICHIGAN FOUNDATION FOR MEDICAL AND HEALTH EDUCATION, INC. LECTURE "BIOLOGIC ASPECTS OF CANCER WITH SPECIAL REFERENCE TO THE BREAST"

GEORGE CRILE, JR., M.D., Cleveland, Ohio
Head, Department of General Surgery, Cleveland Clinic

4:30 P.M.

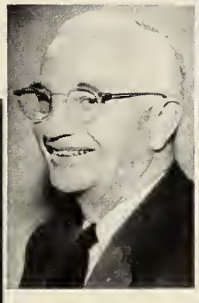
MICHIGAN CANCER COORDINATING COMMITTEE LECTURE "CANCER OF THE COLON AND THE SECOND LOOK OPERATION"

OWEN H. WANGENSTEEN, M.D., Minneapolis, Minnesota

5:00 P.M.
End of Fourth Assembly



GEORGE CRILE, JR., M.D.



OWEN H. WANGENSTEEN, M.D.



A. HAZEN PRICE, M.D.

THURSDAY EVENING
March 1, 1962

Grand Ballroom
8:00 P.M.

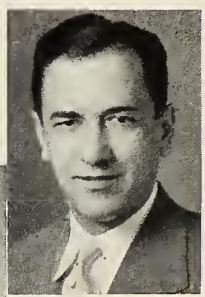
A Public Forum on "STAY YOUNG LONGER"

Moderator:
A. HAZEN PRICE, M.D., Detroit
Chairman, MSMS Committee on Geriatrics; Chairman, Committee on Aging, United Community Service, Detroit

Panelists:
FREDERICK C. SWARTZ, M.D., Lansing

C. HOWARD ROSS, M.D., Ann Arbor
Chairman, MSMS Committee on Courses in Medical Economics and Ethics; Member of MSMS Committee on Geriatrics and Committee on Postgraduate Medical Education

ROBERT PETERSON, New York City
"Life Begins at Forty" Columnist, King Features Syndicate



FREDERICK C. SWARTZ, M.D.



C. HOWARD ROSS, M.D.



ROBERT PETERSON M.D.

FRIDAY
March 2, 1962

7:45 a.m. to 1:00 p.m.—**REGISTRATION**—Fourth Floor
8:00 a.m. to 9:00 a.m.—**THREE DISCUSSION GROUPS**—Rooms on the Fifth Floor
9:00 a.m. to 10:00 a.m.—**ASSEMBLY PROGRAM**—Grand Ballroom
9:30 a.m. to 1:00 p.m.—**EXHIBITION**—Fourth Floor
10:30 a.m. to 12:30 p.m.—**COLOR TV**—Grand Ballroom

DISCUSSION GROUPS ON
I "TODAY'S RADIOISOTOPE USE IN THE ENDOCRINES"

Leader:
J. MARTIN MILLER, M.D., Detroit
Associate Physician, Division of Endocrinology, Henry Ford Hospital

Panelists:
ALLEN R. HENNES, M.D., Detroit

WM. H. BEIERWALTES, M.D., Ann Arbor
Professor of Internal Medicine and Postgraduate Medicine; Coordinator, Radioisotope Unit; Director of Thyroid Research Laboratory, University of Michigan

JAMES C. SISSON, M.D., Ann Arbor
Instructor, Department of Internal Medicine, University of Michigan Medical School



J. MARTIN MILLER, M.D.



WM. H. BEIERWALTES, M.D.



JAMES C. SISSON, M.D.



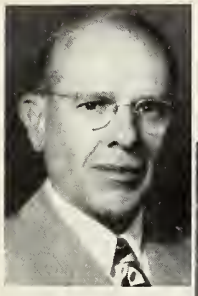
HAROLD A. FURLONG, M.D.



HAROLD A. OTT, M.D.



F. W. TAMBLYN, M.D.



HAROLD HENDERSON, M.D.



JAMES H. BEATON, M.D.



LEONARD P. HEATH, M.D.



GEORGE W. MORLEY, M.D.



HAROLD E. BOWMAN, M.D.

II "CURRENT PROBLEMS IN OBSTETRICS"

Leader:

HAROLD A. FURLONG, M.D., Pontiac
Chief of Obstetrics-Gynecology Section, Pontiac General Hospital

Panelists:

JOHN R. G. GOSLING, M.D., Eloise
Director, Department of Obstetrics-Gynecology, Wayne County General Hospital

TERUO T. HAYASHI, M.D., Philadelphia, Pa.

HAROLD A. OTT, M.D., Royal Oak
Educational Director, Wm. Beaumont Hospital

FREDERICK W. TAMBLYN, M.D., Lansing
Diplomate of Obstetrics-Gynecology; Consultant in Obstetrics-Gynecology at Sparrow and St. Lawrence Hospitals

III "CURRENT PROBLEMS IN GYNECOLOGY"

Leader:

HAROLD HENDERSON, M.D., Detroit
Consultant in Obstetrics, Providence Hospital; Associate Clinical Professor, Department of Gynecology-Obstetrics, Wayne State University College of Medicine

Panelists:

JAMES H. BEATON, M.D., Grand Rapids
Consultant in Obstetrics-Gynecology, St. Mary's Hospital

LEONARD P. HEATH, M.D., Detroit
Vice Chief of Department of Obstetrics-Gynecology, Harper Hospital

JOHN L. MCELVEY, M.D., Minneapolis, Minn.

GEORGE W. MORLEY, M.D., Ann Arbor
Associate Professor of Obstetrics-Gynecology, University of Michigan Hospital

FIFTH ASSEMBLY

Grand Ballroom

Chairman: J. E. CLIFFORD, M.D., Detroit
Secretary: C. W. COLWELL, M.D., Flint

OBSTETRICS-GYNECOLOGY

9:00 A.M.
"ENDOMETRIAL HYPERPLASIA"
JOHN L. MCELVEY, M.D., Minneapolis, Minn.
Professor of Obstetrics-Gynecology, University of Minnesota Hospital

9:30 A.M.
(Obstetrical subject to be announced)
TERUO T. HAYASHI, M.D., Philadelphia, Pa.
Associate Professor of Obstetrics-Gynecology, Temple University Hospital

10:00 A.M.
INTERMISSION TO VIEW EXHIBITS

10:30 A.M.
COLOR TELEVISION PROGRAM—beamed to the Grand Ballroom, Sheraton-Cadillac Hotel, through the cooperation of the staff of Detroit's Providence Hospital and Smith, Kline and French Laboratories of Philadelphia.

10:30 A.M.
"CYSTOCELE AND RECTOCELE"
Moderator:
CHARLES P. HODGKINSON, M.D., Detroit

(Panelists to be announced)

11:30 A.M.

"ORGAN RECITAL (FRESH TISSUE DEMONSTRATION)"
HAROLD E. BOWMAN, M.D., Grand Rapids
Pathologist and Director of Laboratories, St. Mary's Hospital; Consultant, Pathologist, Community Hospital

(Panelists to be announced)

12:30 P.M.
End of color television program

12:30 P.M.
FINAL INTERMISSION TO VIEW EXHIBITS

1:00 P.M.
End of 1962 Michigan Clinical Institute

DISCUSSION GROUPS

Topics of interest and practical value to all members of the Michigan State Medical Society have been chosen. Qualified men have been selected as Moderators and Panelists. All Groups from 8:00 to 9:00 A.M. are scheduled as follows:

Three on Wednesday, February 28
Three on Thursday, March 1
Three on Friday, March 2

See complete programs on pages 90, 93, 95.

Members may submit in writing now and up to three weeks before the MCI, through Chairman of the Program Committee, John W. Sigler, M.D., questions concerning any phase of the subjects listed on the following official form. Moderators and Panelists will answer those questions which they feel are applicable to the subject under discussion, and will answer as many questions, including questions from the floor, as time permits.

Due to room capacities, each Discussion Group must be limited to thirty registrants—taken on a first-come, first-served basis. Admission tickets will be supplied to those who apply to the Michigan Clinical Institute, Box 152, East Lansing.

* * *

Michigan Clinical Institute
Att: John W. Sigler, M.D., Chairman, Program Committee
c/o P.O. Box 152
East Lansing, Michigan

Enroll me in the following Discussion Groups:

WEDNESDAY, FEBRUARY 28:

- **Chemotherapy in Malignant Diseases**
- **Today's Radioisotope Use in Central Nervous System and the Eye**
- **Drugs for the Relief of Pain**

THURSDAY, MARCH 1:

- **Laboratory Aids in Practice**
- **Today's Radioisotope Use in Heart, Kidney, Liver, and Spleen**
- **New Fungicidal Agents**

FRIDAY, MARCH 2:

- **Today's Radioisotope Use in the Endocrines**
- **Obstetrics**
- **Current Problems in Gynecology**

My questions are:

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Michigan State Medical Assistants Society

FIFTH ANNUAL EDUCATIONAL SEMINAR

Detroit-Leland Hotel, Detroit, Michigan

Wednesday, February 28, 1962

Theme—"Learning is Living"

Morning Session—9:00 a.m. to 12 M

A.M.
9:00 Registration—Mezzanine Foyer

10:00 Welcome—Colonial Room
CECILE RUTAN, *President, Michigan State Medical Assistants Society*
Remarks
RUTH TRIMM, Chairman, Educational Seminar

10:15 Address: L. Fernald Foster Lecture
GEORGE LOWREY, M.D., *Associate Professor of Pediatrics and Communicable Diseases; Director of Poison Control Center, University Hospital, Ann Arbor*

11:15 Address: *"Is Your Credit Slip Showing?"*
PAUL ROOT, *Immediate Past President, American Collectors Association. Medical Credit Exchange, Ann Arbor*
Luncheon—12:15 p.m.—Jade Room
Presentation of Certificates
JEAN RUDE, Chairman of Education

Afternoon Session—1:30 p.m. to 3:30 p.m.

P.M.
1:30 *Address:* "Is It a Fact?"—Colonial Room
ADELIA M. BEEUWKES, *Professor of Public Health Nutrition, School of Public Health, Ann Arbor*

2:45 *Address:* "Management of Psychiatric Problems in the Doctors Office".
LEONARD E. HIMLER, M.D., *Mercywood Hospital, Ann Arbor*

Registration and Luncheon—$5.50

Reservations should be made by February 21, 1962, to: Mrs. Ilah Shroyer, 1402 Davison Road, Flint, Michigan.

Officers

President
Miss Cecile Rutan, Hanover
President-Elect
Miss Catherine LePres, 302 Medical Arts Building, Muskegon
Vice President
Mrs. Vivian Branyan, Spring Lake
Corresponding Secretary
Mrs. Marion Collins, 719 17th Street, Jackson
Recording Secretary
Mrs. Marie Nielsen, 310 Medical Arts Building, Muskegon
Treasurer
Miss Helen Hawkins, 2031 N. Michigan Avenue, Saginaw
Chairman of Seminar
Mrs. Ruth Trimm, Out-Patient Building, Ann Arbor

Institute for Operating Room Nurses

March 1-2, 1962

Statler-Hilton Hotel, Detroit

Sponsored By

Operating Room Nurses Conference Group
of the
Michigan State Nurses Association

Thursday, March 1, 1962

8:00 A.M.
Registration Desk Open *Ballroom Foyer*

9:00 A.M.
Wayne Room
Presiding: Mrs. Harriett S. Bell, R.N., Chairman, ORN Conference Group, MSNA

Greetings and Introductions

9:15 A.M.
SYMPOSIUM ON DISASTER

"The Role of the Red Cross in Disaster"
Marjorie Gaunt, R.N., Nursing Director, Detroit Chapter, American Red Cross

"Civil Defense Sets Up an Operating Room in Disaster"
Mrs. Marie Rodriguez, R.N., Chairman, Michigan Committee on Nursing in National Defense

"The Functions of the Operating Room Personnel in Disaster"
Shirley Hamilton, R.N., Assistant OR Supervisor, Bronson Hospital, Kalamazoo

10:45 A.M.
COFFEE BREAK

11:00 A.M.
Wayne Room
"Developing the Hospital Disaster Plan"
Genevieve Groszko, R.N., Administrative Assistant, Providence Hospital, Detroit

12:00 M.
Lunch

Wayne Room
1:30 P.M.
"The Use of Synthetic Grafts in Vascular Surgery"
Roger Smith, M.D., Associate in Surgery, Department of General Surgery, Henry Ford Hospital, Detroit

3:00 P.M.
Wayne Room
"Two Weeks in the Soviet Union"
Lillian Ostrand, R.N., Professor, School of Public Health, University of Michigan, Ann Arbor

5:30 P.M.
Dutch Treat Cocktails *English Room*

Banquet *Bagley Room*
Mel Snyder, Balloon Sculptor

Friday, March 2, 1962

8:00 A.M.
Registration Desk Open *Ballroom Foyer*

9:15 A.M.
Wayne Room
Presiding: Mrs. Muriel Horton, R.N., Chairman, Program Committee, ORN Conference Group, MSNA

"Hospital Accreditation—The Responsibility of the OR in Relation to Accreditation"
Kenneth Babcock, M.D., Chairman, Joint Commission on Accreditation, American Hospital Association, Chicago

10:30 A.M.
COFFEE BREAK

10:45 A.M.
Wayne Room
"Preparation, Precaution and Protection in the Use of Radioactive Substances"
Kenneth Krabbenhoft, M.D., Department of Radiology, Harper Hospital, Detroit

Question and Answer Period

12:00 M.
Lunch

1:30 P.M.
Wayne Room
"Bacteriological Control of Operating Room Sepsis"
Donald J. Merchant, Ph.D., Associate Professor of Bacteriology, Department of Bacteriology, University of Michigan, Ann Arbor

2:45 P.M.
SECTION PROGRAMS

Nursing Service Administrators *Wayne Room*
"The Purchasing Agent and the OR Supervisor Work Together"
"Maintaining Standard Materials in the OR"
Martin Mix, Purchasing Agent, Henry Ford Hospital, Detroit
Mrs. Helen Horkins, OR Supervisor, Detroit Memorial Hospital, Detroit

2:45 P.M.
Bagley Room
Educational Administrators, Consultants and Teachers
Panel Discussion and Open Forum
"Planning Meaningful Clinical Experience in the Operating Room for the Student of Nursing"
Moderator:
Mrs. Harriet Russell, R.N., Director of Nursing, Children's Hospital, Detroit
Panel Participants:
Helen Huiskens, R.N., Nursing Instructor, Mercy Hospital, Bay City
Beverly Fillips, R.N., Nursing Instructor, University of Michigan Hospital, Ann Arbor
Phyllis Walker, R.N., Nursing Instructor, St. Mary's Hospital, Saginaw

2:45 P.M.
General Duty and Office Nurses *Ivory Room*
"Draping the Patient for Surgery"
Demonstration of Technics
Theresa Kusto, R.N., Assistant Supervisor, St. Mary's Hospital, Grand Rapids
Janet Durham, R.N., Staff Nurse, Hackley Hospital, Muskegon
(To be announced), Staff Nurse

4:15 P.M.
Evaluation

AMPAC to Serve "An Unmet Need"

As the Kennedy Administration prepares to make an all-out effort to push the social security-medical care for aged legislation through Congress in the 1962 session, there also is a new organization—The American Medical Political Action Committee—to join the struggle. It is a non-profit, voluntary, non-partisan, unincorporated committee setup last May with the approval of the AMA Board of Trustees.

AMPAC—which functions independently of medical organizations and societies whether at the national, state or local level—was organized to meet "an unmet need—the need of providing the medical profession with an opportunity to assume a more active and effective role in public affairs."

The AMA Board of Trustees House of Delegates at Denver, last November, urged that all physicians, their wives and interested friends join AMPAC and similar political action committees in their states and communities.

Leonard W. Larson, M.D., AMA president, warned the House of Delegates that physicians "are engaged in a historic struggle to preserve our country's unique system of medical care and our stature as a profession. " He said both are "seriously threatened" by such legislative proposals as the King-Anderson bill.

Dr. Larson said that the AMA could expect "even more bitter attacks" than those so far from Administration and AFL-CIO spokesmen. He appealed to physicians to support medicine's friends in Congress with money and personal campaign assistance.

He noted that AMPAC provides "a national mechanism through which physicians and their families can channel funds for strategic placement where the money will do the most good."

Care-of-Aged Attitude Measured by Survey

A recent survey of 3,000 adults, conducted by the University of Michigan Survey Research Center with financial support from the Ford Foundation and the U.S. Department of Health, Education and Welfare, revealed the following attitudes toward financial responsibility for the aged:

Relatives should have sole responsibility	29 per cent
Relatives should have primary responsibility	30 per cent
Relatives, government should share responsibility	9 per cent
Government should have primary responsibility	6 per cent
Government should have sole responsibility	21 per cent
No opinion	5 per cent

The principal reason given by those who considered support of relatives a family responsibility was that "families should care for their own." Those who favored joint responsibility believed that the sharing should depend on finances. The group in favor of government responsibility said, "This is the government's job" or "Relatives cannot afford to support older people."



Specific Objections To H.R. 4222 by the AMA

The following twelve objections to H.R. 4222 were outlined in detail by the American Medical Association in its statement by Leonard W. Larson, AMA president, when he appeared before the Ways and Means Committee of the U. S. House of Representatives, August 2, 1961:

1. It would lower the quality of medical care.
2. It is unnecessary.
3. It would be unpredictably, but extremely expensive.
4. It would endanger the entire Social Security system.
5. It would undermine private health insurance and other prepayment mechanisms.
6. It would lead to the decline, if not the demise, of voluntary efforts at the community level.
7. It would expand into a full-fledged system of socialized medicine, eventually covering every citizen of this nation.
8. It would cover millions of people who neither need help in paying the costs of their health care, nor want such help.
9. It would compel the nation's younger workers to pay for these unnecessary benefits through an increased compulsory gross payroll tax.
10. It would determine eligibility for medical aid on the basis of age rather than on the basis of need.
11. It would destroy the concepts of individual and familial responsibility.
12. It would overcrowd existing facilities through overuse.

Copies of the full AMA statement may be obtained from the Michigan State Medical Society, P.O. Box 152, East Lansing, Michigan.

To Combat Poisonings

Twenty-one professional, industrial, service organizations and federal agencies will join together for the first National Poison Prevention Week, March 18-24. A recent Act of Congress authorized the President to designate the third week of March each year as National Poison Prevention Week.

Some 302,000 children under five suffer accidental poisoning every year.

Medical Meetings Are "Well Worth Expenditures"

Speaking of attending medical meetings, especially the Annual Meeting whether it be national, state or local, Morris Fishbein, M.D., takes a refreshing and philosophical slant: Said Fishbein, following the recent AMA New York session:

"The splendid opportunity to meet one's friends, to hear at first hand from investigators about the course of their researchers, to learn from manufacturers their progress in meeting the needs of modern pharmaceutical demands, and to feel oneself a part of a great profession is a more than adequate reward for the fatigue, and the time and money expended."

Speaks at Aged Conclave

Frederick C. Swartz, M.D., of Lansing, Chairman of the AMA's Committee on Aging, was one of the guest speakers at the Second National Conference of the Joint Council to improve the health care of the aged on December 15, in Chicago. Doctor Swartz was the speaker-pro in a debate on "The Pros and Cons of Flexible Retirement."

National Advisory Committee To the Selective Service System

The recent calls for physicians and other health personnel by the Selective Service System have been completed to the point where the individuals involved have been informed of their imminent induction.

It is obvious that since this first call has been made against those who have completed their internships and still have not reached their 28th birthday, the vast majority called would be those who are serving their first year of residency. It is granted that it is unfortunate that they should be disturbed at this point in their scientific training careers; however, some of them, at least, had opportunities to apply for commissions in the Armed Forces Residency Program (Berry Plan). On the other hand, there were some who applied for commissions and were not able to obtain them because no vacancies were available in the service of their choice. Consideration has to be given on the other side to the fact that many of these individuals did not do either, but simply elected to take the chance of not being called while in training.

It must also be emphasized that the National Advisory Committee to Selective Service, in the past seven or eight years, has advised that hospitals should concern themselves with the potential military liability of those being given appointments for further training.

The Committee understands fully that the withdrawal of any resident can be a serious matter to a hospital. Every hospital should adjust as well as possible to the loss of some of its residents and should realize that it is preferable to lose a first-year resident, at the present time, than a third-year resident two years from now.

The Committee, of course, is aware of the fact that this call-up is not evenly distributed and cannot be, since it is on an age basis. If any situations develop in which an undue number of residents are ordered for induction from any one hospital or in a larger hospital, from any one Service, seriously impairing its efficiency, the State Chairman should be informed. If necessary, he can refer the problem to the National Committee for decision. The Committee will make every effort to fulfill the obligation assigned to it by Congress to see to it that the withdrawal of health personnel to supply the Military does not adversely affect the civilian medical care.—Excerpts from Memorandum, Nov. 21, 1961.

Doctors to Assist At MAP Congress

The Board of Directors of the
Michigan Association of the Professions
cordially invites you to attend the
3rd Annual
CONGRESS OF THE PROFESSIONS
Friday and Saturday, February 9 and 10, 1962
Kellogg Center, Michigan State University
East Lansing, Michigan

Members of the Michigan State Medical Society will take an important part in the forthcoming "Congress of the Professions," annual meeting of the Michigan Association of the Professions, at Kellogg Center, Michigan State University, February 9 and 10.

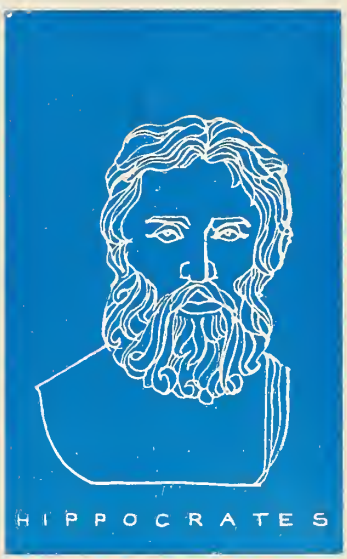
Otto K. Engelke, M.D., Ann Arbor, MSMS president, will serve as Honorary Chairman of the Congress together with the presidents of the six other state professional societies representing the member professions of MAP.

Lawrence Drolett, M.D., Lansing, will preside at the hearing sponsored by the MAP Committee on Legislation which will feature several members of the national and state legislatures as speakers. Dr. Saltonstall will preside at the Founders' Luncheon on Saturday at which the founding Board of Directors of MAP will be honored. Included in this group are George W. Slagle, M.D., Battle Creek, William M. LeFevre, M.D., Muskegon, MAP's first president and G. B. Saltonstall, M.D., Charlevoix.

Luther R. Leader, M.D., Detroit, is co-chairman with R. H. Gilmore, D.D.S., Saginaw, of the Committee on Delegates and Mrs. Clarence I. Owen, Detroit, president of the MSMS Auxiliary, has been invited to assist Mrs. John G. Nolen, East Lansing, wife of MAP president, John G. Nolen, D.D.S., on the Hostess Committee. Presidents of the six other state professional society auxiliaries will also serve with Mrs. Owen.

Austin Smith, M.D., Washington, D. C., president of the Pharmaceutical Manufacturers Association, will give the key-note address of the annual business meeting, Saturday morning.

A fast-moving, informative and interesting program is planned.



Five More Doctors Placed by MHC

The Michigan Health Council M.D. Placement Service was responsible for three direct and two indirect placements of doctors of medicine in the last quarter of 1961.

Raymond L. Mayor, M.D., one of the indirect placements, established a practice in Pontiac in November. Doctor Mayor had been registered with the Service since 1957. He established a general practice. The other was Thomas Reigel, Jr., M.D., who began a pediatric practice in Kalamazoo in October.

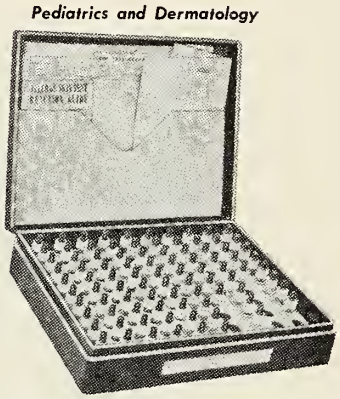
The September placements included Thomas M. Watkins, M.D., a general practitioner, in Alpena, and R. W. Spalding, M.D., who went to Bloomingdale. Doctor Watkins first got in touch with the

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Placement Service in 1960. Doctor Spalding, formerly of Lansing, is an advisor to the Placement Service.

Frank W. Parsons, M.D., a surgeon, was placed in Muskegon within five months after he was referred to the Michigan Health Council by the American Medical Association.

Orthopaedic Society Elects

The Michigan Orthopaedic Society held its 1961 annual meeting in Grand Rapids in conjunction with the Michigan State Medical Society Annual Session under the presidency of Donald C. Durman, M.D., of Saginaw.

The program chairman, G. T. Aitken, M.D., introduced the speaker Paul Lipscomb, M.D., of Rochester, Minnesota, who discussed "Unresolved Problems of Tendons and Their Environs."

New officers elected were: President-elect: H. W. Harris, M. D., Lansing; Secretary-Treasurer: Curtis Hanson, M.D., Kalamazoo, and Membership Committee: Dr. Aitken, Grand Rapids. Victor Mateskon, M.D., of Petoskey, is president for 1962.

New Directory Offered By Health Department

The Michigan Health Council's Directory of Michigan Health Organizations is ready for distribution. It contains in its 150 pages detailed information regarding more than 140 Health and Welfare Associations, Societies and Foundations.

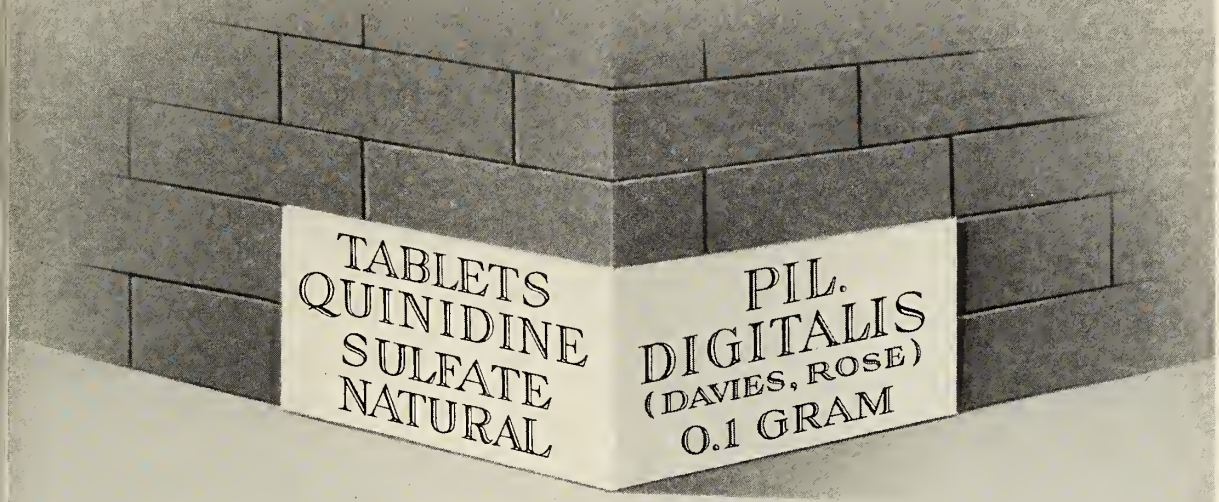
In addition, it includes a special 23-page Directory of Health Films and Career Films that are available for free showing at PTA meetings, luncheon clubs, hospitals, nursing homes, public and parochial schools and at other community and school functions. Not only are the facts about health films available from Michigan organizations listed, but films from national voluntary and governmental health agencies as well.

Otto K. Engelke, M.D., President of the Michigan State Medical Society and a Past President of the Michigan Health Council, stated that this is without doubt the most complete directory of voluntary and official health organizations ever published in the United States.

Individuals and organizations interested in ordering the directory are urged to write the Michigan Health Council, P.O. Box 431, East Lansing, Michigan.

Say you saw it in the Journal of the Michigan State Medical Society

A CORNERSTONE OF CARDIAC THERAPY



The Dictionary defines a cornerstone as something of fundamental importance, just as Pil. Digitalis, (Davies, Rose) and Tablets Quinidine Sulfate Natural (Davies, Rose) are of fundamental importance in treating your cardiac patients. These preparations represent 60 years of experience and dependability in the manufacture of pharmaceuticals.

Pil. Digitalis (Davies, Rose), 0.1 Gram (approx. 1½ grains) which comprise the entire properties of the leaf, provide a dependable and effective means of digitalizing the cardiac patient, and of maintaining the necessary saturation.

Tablets Quinidine Sulfate Natural, 0.2 Gram (approx. 3 grains) are alkaloidally assayed and standardized, insuring uniformity and therapeutic dependability. Each tablet is scored for the convenient administration of half dosages.

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DQ-2

Pathology Comment

Items published here are provided by the Michigan Pathological Society

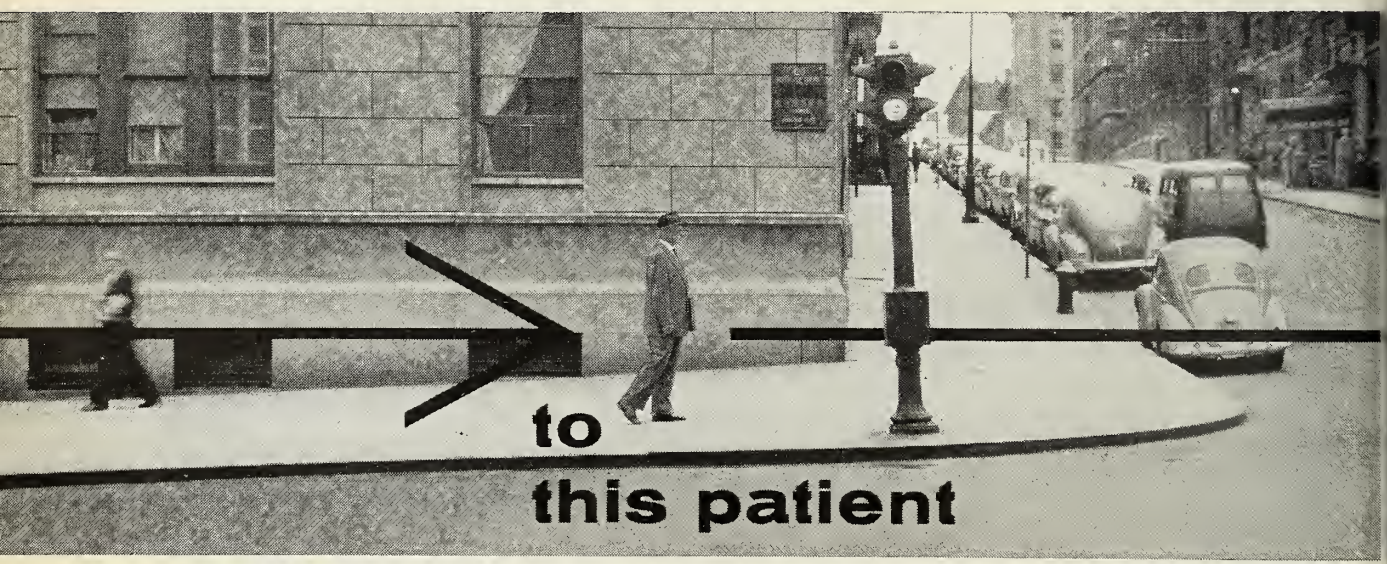
Growth of Clinical Pathology

The expansion of the field of clinical pathology has been so rapid that it has become a major problem for hospital and private laboratories to provide all of the services demanded by the physicians for their patients. The emergence of the clinical pathologist as a medical consultant occurred first in England and then in the United States; the American Society of Clinical Pathologists was founded in 1922. The activities of this organization are many and varied, and one of the most important functions is the Registry of Medical Technologists. The scope of this operation is reflected in the following statistics:[1]

- In 1936, there were 852 pathologists in the U.S.; in 1961, 3868.
- There were 711 residency training programs in pathology in 1960.
- There were 2638 pathology residents in training in the United States in 1960.
- The American Board of Pathology granted more certificates in 1959 than any other board except those of Surgery and Internal Medicine.
- As of June, 1960, there were 734 approved schools of medical technology in the United States.

During this time, the pathologist has come into closer relation with the clinicians. His position as a practitioner of medicine has also been emphasized by the AMA, which has repeatedly affirmed the principle that the practice of pathology is the practice of medicine, and that services rendered by pathologists are *medical* service and not "hospital service."

During the recent American Medical Association meeting in New York the following resolution was passed by the House of Delegates:



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the blocks seem much shorter... he can walk many more of them in comfort

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Laboratories Should Be Supervised by Qualified, Licensed Physicians

Whereas, The Practice of pathology, both clinical and anatomical, has been declared repeatedly to be the practice of medicine by the AMA, by the Illinois State Medical Society, by other state and county medical societies, by the College of American Pathologists and other special professional societies, by courts of record having certain legal jurisdictions, and by opinions of record of attorneys general of certain states; and

Whereas, There are medical laboratory technicians and other non-professional persons operating independent medical laboratories on a commercial basis without medical licensure, without adequate education or training, and without proper professional supervision; and

Whereas, Persons operating such commercial laboratories frequently charge fees to physicians under conditions fostering the division of fees between the laboratory and the referring physician; and

Whereas, It is desirable to encourage scientists of professional status, such as chemists and bacteriologists with doctoral degrees to work cooperatively with physicians for the welfare of patients and in the interest of public health; and

Whereas, The independent practice of laboratory medicine, generally known as pathology, by persons without medical licensure degrades the practice of medicine and of pathology in particular, is against the public interest and seriously lowers the medical and scientific standards of medical practice; and

Whereas, The continued operation of commercial medical laboratories operated by unqualified persons is not possible without the patronage of the medical profession; and

Whereas, The medical profession generally has always placed the common good above self interest and has adhered to ethical and moral principles; therefore be it

RESOLVED,

That the American Medical Association hereby declares that the proper conduct of laboratory analyses is a medical professional responsibility and all specimens for such analysis should be referred to laboratories supervised by fully qualified and licensed physicians.

Reference

1. Gould, S. E.: Clinical Pathology in the United States—Its development, role, and influence as a medical specialty. Conn. Med., 25:400, 1961.

Brain Tumor Localizing

A new method to pin-point the location and size of brain tumors has been used on over 150 patients at the University of Michigan Medical Center. Doctors say the new procedure, which employs an $8,500 instrument called a photoscanner and the techniques of atomic medicine, gives "direct evidence of the exact location of the tumor."

The method was developed in 1959 at the Roswell Park Memorial Institute, Buffalo, N. Y., and was introduced at Ann Arbor for full scale clinical use in 1960.



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thromboangiitis obliterans | night leg cramps | Raynaud's syndrome | cold feet, legs and hands

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MICHIGAN DEPARTMENT OF HEALTH

ALBERT E. HEUSTIS M.D., State Health Commissioner

International Certificates Of Vaccination

Michigan physicians giving immunizations to patients planning to travel to foreign countries requiring immunization against cholera and smallpox should advise these patients that the immunizations must be verified on the immunization certificate with a new uniform validating stamp. Such proper and official validation will avoid delays in foreign travel. Purpose of the regulation is to establish the validity of the required vaccinations and thus prevent introduction and spread of disease in the countries visited and on return home to this country.

The State Health Department has furnished a uniform official stamp bearing the proper area code number to health officers in full-time county, multicounty, and city health departments. Every certificate of vaccination must now be validated with this uniform stamp. Physicians performing smallpox and cholera vaccinations should refer patients with certificates to a health department authorized to validate them.

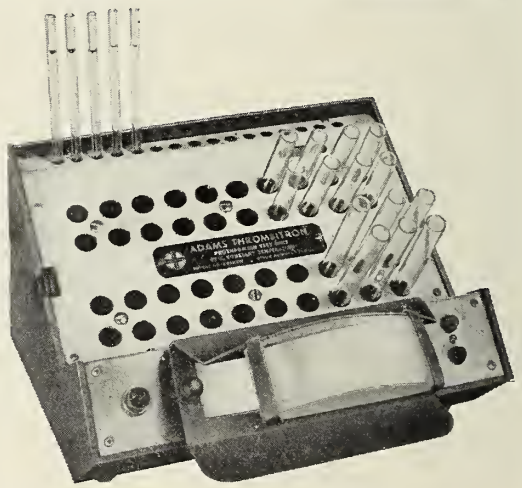
In counties without such health departments, referral can be made to the nearest county so authorized or directly to the Michigan Department of Health, Lansing 4, Michigan. Certificates may be mailed for the required authenticating stamp.

County health departments having officially designated stamps are located at: Adrian, Allegan, Ann Arbor, Battle Creek, Bay City, Cadillac, Centreville, Charlevoix, Charlotte, Coldwater, Corunna, Eloise, Escanaba, Flint, Gladwin, Grand Haven, Grand Rapids, Grayling, Hart, Hastings, Hancock, Holland, Houghton Lake, Hillsdale, Iron Mountain, Kalamazoo, Kalkaska, Lake City, Lansing, Ludington, Manistique, Marshall, Menominee, Midland, Monroe, Mount Clemens, Mount Pleasant, Muskegon, Port Huron, Rogers City, Royal Oak, Saginaw, Sandusky, Sault Ste. Marie, Traverse City, West Branch, White Cloud.

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With the Thrombitron, all the required test components are within finger tip reach. The entire test can be performed with the technologist seated at the lab table—no wasted time or motion.

Unit is designed for either accepted standard method—"tilt" or "loop." A constant light source and magnifying viewer assure accurate observation. The Adams Thrombitron has no moving part or complex electrical circuits—no maintenance problems.

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City health departments having officially designated stamps are located at: Detroit, Jackson, Pontiac, and Saginaw.

Yellow fever vaccinations must be performed at an approved yellow fever vaccination center which will authenticate the immunization. These centers in Michigan are:

Ann Arbor
University Hospital, University of Michigan
1405 East Ann St.
Tel. NOrmandy 3-1531
Pediatrics Clinic, Ext. 7101

Detroit
U. S. Public Health Service Hospital
Windmill Pointe
Tel. VAlley 2-9300

Henry Ford Hospital
2799 West Grand Blvd.
Tel. TRinity 5-2900, Ext. 316-7-8

Preventive Medicine Clinic
Perkin Clinical Laboratory
773 Fisher Bldg.
Tel. TRinity 5-2485

It is recommended that yellow fever vaccination not be given two weeks prior or two weeks following smallpox vaccination.

NIH Seeks Whipple's Disease Patients

The Clinical Center of the National Institutes of Health in suburban Bethesda, Maryland, is seeking referrals of patients with Whipple's disease which tends to occur in middle aged men. This condition is marked by non-crippling arthritis, weight loss, diarrhea with malabsorption, and abdominal distension. Interested physicians are advised to communicate with Leonard Laster, M.D., National Institute of Arthritis and Metabolic Diseases, Bethesda 14, Maryland. The telephone number is 496-4201.

Examinations for Medical Officers, USPHS

Examinations for appointments of physicians as Medical Officers in the Regular Corps of the United States Public Health Service Commissioned Corps will be held throughout the United States on February 13, 14, and 15, 1962.

Active Duty as a Public Health Service officer fulfills the Selective Service obligation for military duty.

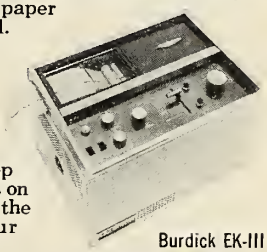
Requirements are U. S. citizenship, and graduation from a recognized school of medicine. For the rank of Assistant Surgeon, at least 7 years of collegiate and professional training and appropriate experience are needed. For Senior Assistant Surgeon, an addi-



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Ro-Cillin Oral Solution with its NEW, UNSURPASSED FLAVOR is the pediatric penicillin of choice.

Available as: 250 mg. tablets and 125 mg/5cc oral solution.

Side effects and precautions are the same as for penicillin G. Use with care where there is a history of allergy, especially to penicillin.

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provides broad-spectrum symptomatic relief of the common cold and other acute respiratory conditions, utilizing the well known synergistic effect of codeine and papaverine. Each yellow capsule (Rx only) contains:

Antitussive-analgesic: 16 mg. codeine phosphate, 16 mg. papaverine hydrochloride and 300 mg. aluminum aspirin.

Decongestant: 5 mg. phenylephrine hydrochloride

Antihistaminic: 2 mg. chlorpheniramine maleate

Plus 100 mg. Vitamin C to promote added resistance to infection.

Colrex Compound is rarely *contraindicated*—only in post-addicts to codeine and those with allergic reactions to opium alkaloids. *Side effects*, seldom encountered, include drowsiness, constipation and gastric distress.

For additional information, see your local Rowell man, or write:

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tional three years are needed. Applicants must be under 34 years of age for appointment to Assistant grade; under 37 for Senior Assistant grade.

Application forms may be obtained by writing to the Surgeon General, United States Public Health Service (P), Washington 25, D. C. Completed application forms must be received by January 5, 1962.

Says Research Necessary

For every 100 drugs researched in this country, 99 are discarded, but the research has to be paid for. Some would be potent and kill off disease but they'd also kill off the patient. So we not only have to find something that can kill disease, we must make it safe. This costs money. When we buy a drug, we're not only paying for the research in the past which made it possible, but we're paying for the continuous research which will make even more and better things available. Take any of the great pharmaceutical companies of this nation and you can point out that many millions of dollars are spent before the first injection or the first capsule is given, after it has been made safe.—EDWARD R. ANNIS, M.D.

Editorial Comment

Medics Working for Complete Control of Board

National Chiropractic Association Journal
November, 1961

The Michigan State Medical Society is taking a tough stand on chiropractic, creating what might be called a crisis in Michigan. All the worn-out cliches have been hurled at the profession with an eye at influencing the delegates to the constitutional convention. The medics would like a composite board controlled by medics to choke chiropractic in this state.

Fortunately, this unwarranted attack came at a time when all factions are united solidly. It will take every bit of fight we have to prevent a catastrophe. All chiropractic licensees are urged to send in $100 immediately to the Joint Committee on Chiropractic Defense, Dr. C. W. O'Dell and Dr. R. R. Robbins, 401 Hollister Bldg., Lansing 8, Michigan.

With all chiropractors fighting together, our cause will prevail and we will win. If you have not sent in your special assessment, do it now. This is DO IT DAY IN MICHIGAN.

Say you saw it in the Journal of the Michigan State Medical Society

Brief and To The Point

ON TV PROGRAM—Carl F. Badgley, M.D., Ann Arbor, appeared on a special one-hour television show on "Sports Medicine" over KLZ-TV, Denver, during the 15th AMA Clinical Meeting. The program was presented by the Upjohn Company, Kalamazoo. Doctor Badgley discussed football injuries.

* * *

RESEARCH SUPPORTED—Wayne State University has received a grant of $19,665 from the U. S. Public Health Service for a research project conducted by E. S. Gurdjian, M.D., Detroit, on "Aneurysms and Acute Subarachnoid Hemorrhage."

* * *

ELECTED—Albert E. Heustis, M.D., Lansing, State Commissioner of Health, was elected a member of the executive committee of the Association of State Health Officials at its annual meeting in Washington.

* * *

CITED—T. R. Deur, M.D., Grant, recently received a citation from the Newago County Selective Service Board. The honor, issued in the name of the President of the United States, was for 20 years of service as a member of the draft board.

* * *

FETED BY COMMUNITY—More than 500 attended a community program at Stockbridge to pay honor to Guy Culver, M.D., who served Stockbridge 35 years and recently retired. Village President Robert Mackinder presented him with an inscribed plaque for his dedicated service to the village.

* * *

RECEIVES AWARD—C. D. Barrett, M.D., Monroe, recently was given the Distinguished Service Award of the Michigan Health Officers Association. Director of the Monroe County Health Department, Doctor Barrett was cited for his significant contributions to the public health of Michigan. He formerly served as Ingham County Health Department director and as director of the Division of Communicable Disease Services of the State Department of Health.

* * *

GIVEN ALUMNI MEDAL—Myron E. Wegman, M.D., Ann Arbor, was one of five alumni of the City College of New York to receive the Harris Medal for "Distinguished Postgraduate Achievement." A City College graduate of 1928, Doctor Wegman taught medicine at Johns Hopkins and Columbia and now is dean of the School of Public Health at the University of Michigan.

* * *

GIVES ADDRESS—Maurice Tatelman, M.D., Detroit, presented a paper about an improved method of detecting possible causes of strokes and other circulatory disturbances of the brain at the convention of the Radiological Society of North America in Chicago recently.





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RETIRES—Eugene H. Payne, M.D., authority on tropical medicine and world traveler, retired in December after more than 20 years with Parke, Davis & Company. A member of the clinical investigation staff for 17 years and in the industrial medicine department for the past three years, Dr. Payne joined Parke-Davis after four years of private medical practice and 10 years of medical teaching. He received his medical degree from Marquette University.

* * *

GIVEN FOOTBALL HONOR — Prescott Jordan, M.D., Orchard Lake, was recently named to the *Sports Illustrated* "Silver Anniversary All-American for 1961." Among the 25 men to make this year's roster were Green Bay Packers Coach Vince Lombardi and Oklahoma University's Bud Wilkinson.

Doctor Jordan is associate professor of surgery at Wayne State University where he teaches and conducts cardiovascular research at the clinic he founded. He also is supervisor of residents at Children's Hospital. His nomination for the "Silver Anniversary All-American" was made by his Alma Mater, the University of Chicago, where he played guard three years and served as assistant football coach in the 1930's.

* * *

HONORED—Nicola Gigante, M.D., Detroit, was honored at a testimonial dinner recently on the occasion of the 40th anniversary of his graduation from the University of Rome. The dinner was given by the Loyal Wing Club, comprised of Detroiters descended from residents of Alfedena, Italy, birthplace of Dr. Gigante. Dr. Gigante was presented with a bronze bust of himself done by Joseph N. De Lauro, head of the fine arts department of Assumption University, Windsor.

* * *

NEW LOCATION—The University of Detroit has purchased the Chrysler Corporation office building at East Jefferson and McDougal for the relocation of its School of Dentistry. Dinan Hall at 630 East Jefferson, erected in 1915, now houses the School of Dentistry. It will be razed to make way for the new Chrysler Expressway, and must be vacated by July, 1963.

* * *

GIVEN PR POSITION—Robert M. Hanson, former administrative assistant to the executive director of Michigan Medical Service, is the new director of public relations and advertising of Michigan Blue Cross-Blue Shield. He succeeds Louis Graff, who resigned to form his own public relations counseling service.

Mr. Hanson formerly was director of training, education and public affairs for the Office of Civil and Defense Mobilization, Region IV in Battle Creek for six years before joining the Blue Shield administrative staff.

* * *

TELLS STORY—The story of "The Worldwide Fight Against Cancer" was told by Harry E. Nelson, M.D., Detroit, in the fall issue of the National Cancer News publication. Copies are available from Southeastern Michigan Division, 2895 West Grand Boulevard, Detroit 5.

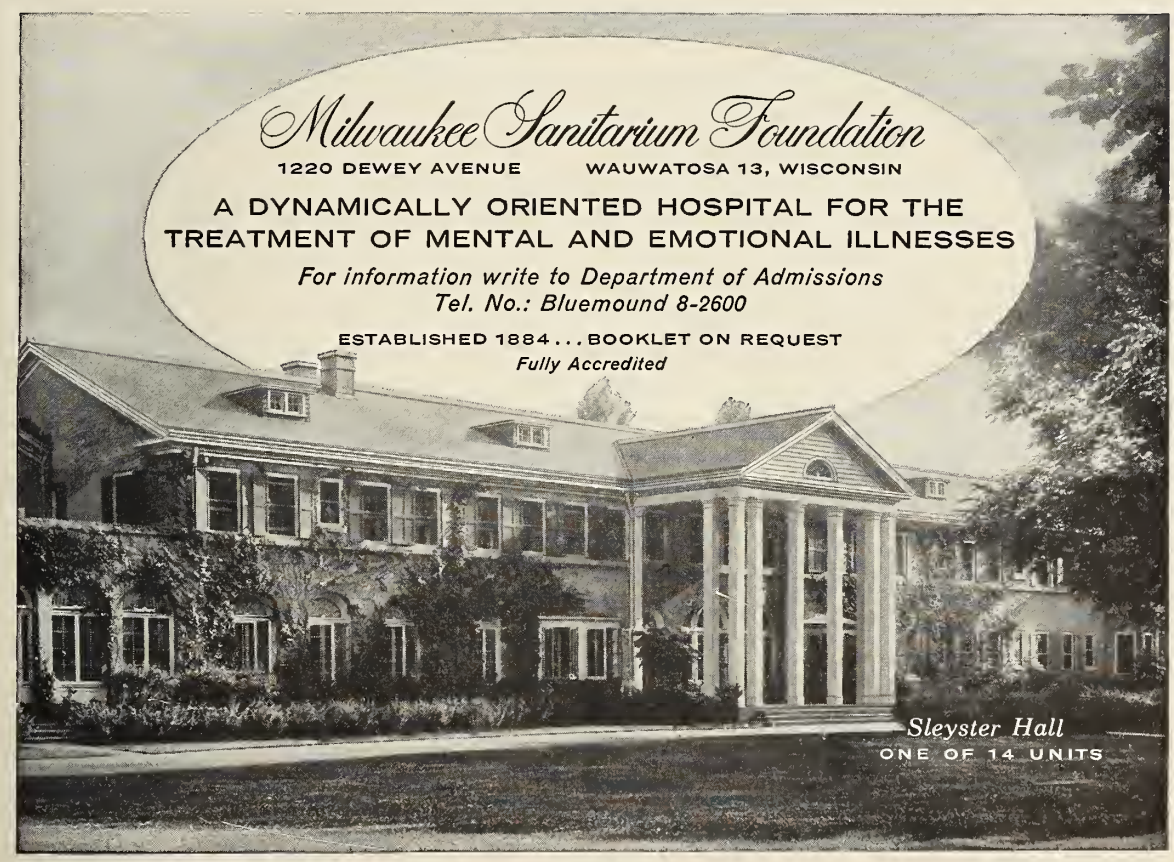
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HONORED—Henry Cook, M.D., Flint, past president of the Michigan State Medical Society, was honored recently when an addition to the Flint Northern High School was named in his honor. The addition contains an auditorium, which will serve both the students and community. Doctor Cook, former chief of staff at Hurley Hospital, has a record of public service in Flint spanning 50 years. He was president of the Flint School Board 1929-1933.



HENRY COOK, M.D.

* * *

BOOKLET AVAILABLE—A new booklet, "Radioactive Medicine—A Pamphlet for the Patient,"—released by E. R. Squibb & Sons, is available to assist physicians in describing the role of radioactive drugs in patient care. The pamphlet describes several of the more common diagnostic and therapeutic applications of radiopharmaceuticals. Doctors may obtain a copy, by writing Squibb, Division of Olin Mathieson Chemical Corporation, 745 Fifth Avenue, New York 22.

* * *

LIBRARY GROWS—Albert D. Ruedemann, Sr., M.D., Detroit, recently received an outstanding collection of ophthalmological books from E. B. Hague, M.D., Buffalo, New York. The main body of the library consists of rare and historically important ophthalmological texts, a field that has always been an area of particular interest to Doctor Ruedemann. The oldest and rarest book in the lot is a Bartisch printed in the late 16th century. The library will form the nucleus of an ophthalmological library named in Doctor Ruedemann's honor and housed at the Kresge Eye Institute.

* * *

VISIT MARSHALL—The Public Health Service held an open house at 22 Civil Defense Medical Stockpile Depots in 14 states on December 7, the 20th anniversary of Pearl Harbor Day. The general public was invited to inspect the installations and learn what drugs, medical supplies and equipment are available for use in a national emergency. The Michigan depot is at Marshall.

* * *

ELECTED—Edmond L. Cooper, M.D., Detroit, was recently re-elected to the sixth successive year as secretary-treasurer of the American Orthoptic Council. John W. Henderson, M.D., Ann Arbor, is also a member of The Council. Both Doctor Cooper and Doctor Henderson took part as instructors in the recent meeting of the American Academy of Ophthalmology and Otolaryngology in Chicago.

* * *

SCHOLARSHIPS — National Medical-Sloan Foundation Scholarships for Negro men again will be awarded by National Medical Fellowships, Inc., for four years in medical school beginning in the fall of 1962, write to National Medical Fellowships, Inc., 951 East 58th Street, Chicago 37, Illinois.

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IN MEMORIAM

RALPH G. LOMMEN, M.D., sixty-seven, retired Manton physician, died October 11, 1961.

A 1924 graduate of Rush Medical College, Chicago, Doctor Lommen practiced in Manton from 1924 to 1926. From 1926 to 1942, he practiced in Chicago and Los Angeles, returning to Manton in 1942, where he practiced until his retirement in 1960. Doctor Lommen served in the U. S. Army during World War I.

FRANCIS J. O'DONNELL, M.D., sixty-four, Alpena physician since 1922, died November 2, 1961.

A graduate of St. Louis University Medical School, Doctor O'Donnell served his intership in Alabama and practiced in Grand Rapids for a brief period prior to moving to Alpena.

Doctor O'Donnell was a past president of the Alpena-Alcona-Presque Isle Medical Society. He was Alpena city health officer from 1933 to 1939 and was reappointed health officer in 1953. In 1938, he was appointed by Gov. Frank Murphy to the Michigan State Board of Registration in Medicine.

LEO ORECKLIN, M.D., sixty, prominent Detroit dermatologist for thirty-seven years, died October 28, 1961, while vacationing in Italy.

Born in Russia, Doctor Orecklin came to Canada as a young man and was graduated from the Toronto University Medical School. He served his internship at Providence Hospital, Detroit, 1923-24, and immediately began practice in Detroit.

Doctor Orecklin was a former chief of the department of dermatology at Women's Hospital and was the senior attending physician in dermatology at Sinai Hospital.

He was a Diplomate of the American Board of Dermatology and a Fellow of the American Dermatology Society and the Michigan Dermatology Society.

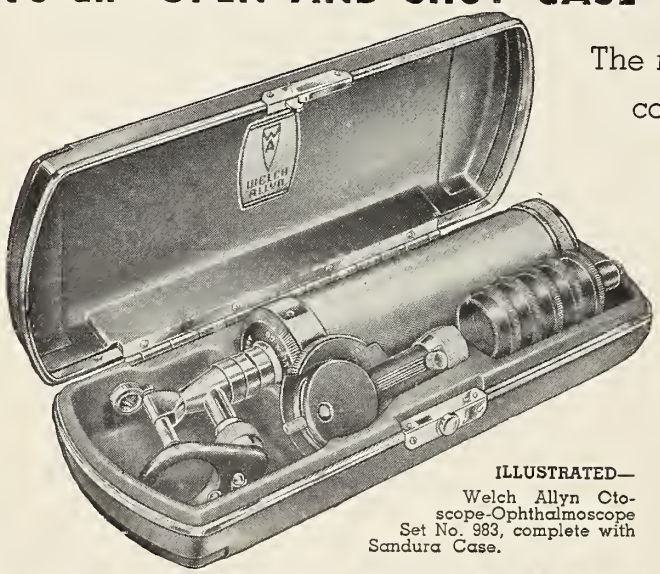
He served as president of Maimonides Medical Society and of Phi Lambda Kappa Fraternity and was a member of Temple Israel, Town and County Club and other national and local movements.

FRANK A. WARE, M.D., fifty-nine, Flint physician since 1930, died October 25, 1961.

A graduate of Marquette University Medical School, Doctor Ware came to Flint as assistant surgeon at the Fisher Plant No. 1. He was Genesee County Coroner from 1934 to 1938 and had served on the staffs of St. Joseph, McLaren General and Hurley Hospitals.

He was a past president of the Genesee County Medical Society and of the Saginaw Valley Academy of Ophthalmology and Otolaryngology.

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COMMUNICATIONS

H. J. Meier, M.D.
Chairman of The Council
Coldwater, Michigan

Dear Dr. Meier:

You can appreciate the difficulty in trying to express for every and all members of The Council their high regard for you, and to adequately convey their recognition of and appreciation for your outstanding leadership during the past year as Chairman of The Council.

Individually, I am sure that the Councilors have expressed to you their personal gratitude and appreciation. This is sincere comment. They recognize, as does the House of Delegates and the entire membership, that The Council achieved new vitality under your guidance. Your ability to make progress and improvements with complete harmony is a tribute to your diplomatic skill as well as your dedication of purpose.

Our only regret is perhaps that you did your job too well. Perhaps you gave MSMS so much of yourself that your medical practice and personal life began to suffer. I think The Council understands, but it is sorry that it was necessary for you to retire from this office.

You have made an indelible mark in the annuals of organized medicine in Michigan, and we all hope sincerely that this gives you a deep sense of accomplishment.

Most sincerely yours,
D. Bruce Wiley, M.D., *Secretary*
Michigan State Medical Society

Carleton Fox, D.D.S.
Detroit, Michigan

Dear Doctor Fox:

It is with a great deal of pride that I have become the temporary custodian of the MSMS President's Gavel which you were kind enough to donate to the Michigan State Medical Society. Because the gavel was made from timber of the original Beaumont House on Mackinac Island, it will serve as a continuing reminder of the great contribution made by Doctor Beaumont many years ago.

The Council, at its September meeting, officially recognized your kind offer to donate this gavel to MSMS and, appropriately, I think, designated the gavel as the MSMS President's gavel. When not in use, the gavel will rest in the MSMS headquarters in the President's Office and be permanently on display, except for times of use.

On behalf of the entire membership of MSMS, I wish to express appreciation for your thoughtfulness in making this historical presentation to Michigan medicine. Knowing of the reverence in which Doctor Beaumont is held by all physicians, I believe the historically significant gavel has come to an appropriate home. Many thanks again, for your thoughtfulness.

Most sincerely yours,
Otto K. Engelke, M.D., *President*
Michigan State Medical Society

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The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

THE STORY OF X-RAYS FROM ROENTGEN TO ISOTOPES. By Alan Ralph Bleich, B.A., M.D., Assistant Clinical Professor of Radiology, New York Medical College; Clinical Instructor of Radiology, New York University-Bellevue Medical Center, College of Medicine; Diplomate, American Board of Radiology. New York, New York: Dover Publications, Inc., 1961. Price, $1.35.

An experienced radiologist condenses the intriguing history, lore and ever-amazing development of the x-ray. His "fireside chat" type of writing style is supported by an easily read print. A good sprinkling of illustrations is adequate for a paper back book and the reader will find many of the cuts of striking interest. Every radiologist would like to have his family read this book which describes the tool with which he works as well as his daily activities.

A concise description of all general x-ray examinations unveils many of the mysteries in the shadow department. Therefore, all hospital nurses, technicians and many patients would enjoy and benefit from these pages.

Chapters on nonmedical uses of the x-ray should prove fascinating to a neophyte or budding scientist.

R.C.H.

HEALTH EDUCATION. A Guide for Teachers and a Text for Teacher Education. Project of Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association with the co-operation of contributors and consultants. Edited by: Bernice R. Moss, Ed.D. Professor of Health Education, University of Utah, Editor; Warren H. Southworth, Dr. P.H., Professor of Health Education, University of Wisconsin, Associate Editor; John Lester Reichart, M.D., Chicago, Illinois, Associate Editor. Fifth edition. Completely rewritten, 1961. Washington 6, D. C.: National Education Association of the United States, 1961. Price, $5.00.

The Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association since 1924 have jointly edited a text dedicated to guidance for those who are responsible for health education. This fifth edition has been completely rewritten and is intended as a source book for teachers, nurses, physicians and members of other professions related to the school health field.

J.G.G.

SYMPTOM DIAGNOSIS. By Wallace Mason Yater, A.B., M.D., M.S. (in Med.), F.A.C.P., Director Yater Clinic, Washington, D. C. Formerly, Professor of Medicine and Director of the Department of Medicine, Georgetown University School of Medicine; Physician-in-Chief, Georgetown University Hospital; Physician-in-Chief, Gallinger Municipal Hospital, Washington, D. C., and William Francis Oliver, B.S., M.D., F.A.C.P., Assistant Clinical Professor of Medicine, University of Southern California School of Medicine; Consultant, Santa Barbara General Hospital; Attending Physician, Cottage Hospital and St. Francis Hospital, Santa Barbara, California; Attending Physician, Service of Internal Medicine, County of Los Angeles General Hospital. Fifth edition. New York: Appleton-Century-Crofts, Inc. Price, $15.00.

This is the fifth edition of this well-known text, now in its thirty-fourth year of existence. As stated in the preface, the purpose of the book is to serve as a diagnostic aid to the busy physician. It is so constructed that the diagnostic possibilities can quickly be reduced to a relatively small list, with little opportunity for oversight of important considerations. In compiling the new edition, an extensive bibliography producing information gleaned from the best authorities in the field was assembled. The author found himself astonished at the many new disease entities and syndromes described since the writing of the previous edition. This classic in differential diagnosis is certainly without peer and would undoubtedly be an asset to each practicing physician regardless of specialty.

J.G.G.

MEMOIRS OF A MEDICO. By Dr. E. Martinez Alonzo. Garden City, New York: Doubleday & Company, Inc., 1961. Price, $4.50.

A written account of the many human experiences encountered in the life of a busy practicing physician is always entertaining. The subsequent development of guiding philosophical principles by a thoughtful person is always enriching. The life of Dr. E. Martinez Alonzo is no exception.

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J.G.G.

GASTRIC CYTOLOGY. Principles, Methods and Results. By Rudolf Otto Karl Schade, M.D. (Dunelm), M.D. (Tuebingen), L.R.C.P., M.R.C.S., Senior Lecturer, Department of Pathology, Royal Victoria Infirmary, Kings College, University of Durham. London: Edward Arnold, Ltd., 1960. Price, $8.00.

This book is a thin, but rather exhaustive treatise, on a subject of narrow scope. The author concludes that simple lavage with saline is still the method of choice, but discusses in detail the abrasive and mucolytic agents and methods.

The photomicrographs are adequate and clear. The results are based on a study of 2,443 patients which revealed an accuracy of 97.6 per cent in positive gastric malignancy, and only six false negatives were noted out of 252 positive cytology smears. In resections for peptic ulcer, only 13 were false positive in a series of 251 cases, an accuracy of 94.8 per cent. These high percentages are not discussed in any detail in contrast to the lower percentage figures of other workers in this field.

The recognition of contaminating cells from the oral cavities, hypopharynx, and other areas is considered with other non-cancerous findings and technical procedures. Allied disorders, such as gastritis, pernicious anemia, and gastric polypi are discussed at length, as well as the normal histology of the mucous membrane.

A.A.H.

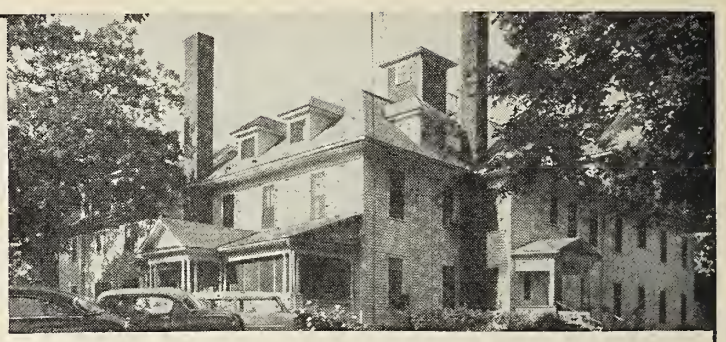
PATHOLOGY. Fourth edition edited by W. A. D. Anderson, M.A., M.D., F.A.C.P., F.C.A.P., Professor of Pathology and Chairman of the Department of Pathology, University of Miami School of Medicine; Director of the Pathology Laboratories, Jackson Memorial Hospital, Miami, Florida. 1385 illustrations and 7 color plates. St. Louis: C. V. Mosby Company, 1961. Price, $18.00.

The new edition of this work is equally as satisfactory and worthwhile as the former. It is very current in thought and the contributing authors form a rather impressive group. The new material on the hypersensitivity-collagen diseases reflects the recent trend of thought on this rather poorly understood subject. Many of the illustrations are new, and there are more clinical illustrations of patients with various disorders that are extremely well done. The new and varied approach to the hyper-bilirubinemias is well outlined; while this is in the literature, it has not been included in many recent books. There are a number of references concerning development in histo-chemical staining and its value. The excellent bibliography following each chapter has been maintained.

The book is recommended to any physician and is sufficiently all inclusive that it probably might be the only volume on this subject that his library required.

A.A.H.

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ABDOMINAL OPERATIONS. By Rodney Maingot, F.R.C.S., London. With special articles by 36 British and American contributors. Fourth edition. New York: Appleton-Century-Crofts, Inc., 1961. Price, $29.50.

This is the fourth revision of the popular British text edited by Mr. Rodney Maingot with contributions by thirty-six British and American surgeons. Complete description of the many surgical diseases of the abdomen with an extensive description of the various forms of surgical management make this a very desirable asset to the surgeon's bookshelf. The subject matter is current, is accompanied by many invaluable references and is reflective of the particular noted author's views of the disease in question. The style is that of the typical lucid British text and is accompanied by multiple illustrations.

Certainly, those who are familiar with previous editions will desire the current writing.

J.G.G.

THE DOCTOR BUSINESS. Revised edition. By Richard Carter. Dolphin Books. 275 pages. Garden City, New York: Doubleday & Company, Inc., 1961. Price, 95 cents.

This pocket edition from a more or less prolific writer strikes another note. A list of his titles is imposing: Group Practice Plans, Socialized Medicine, AMA, Forand. Perusal of this book will give the interested doctor of medicine an idea of the extent to which our detractors are going to bring about the socialization of medicine and the nationalization of health care.

The very first item tells of the boy who fell in a well and the doctor who stood by helping, then figured out how many hours he had spent and charged at the rate of $30 an hour, a total of $1,500. The immediate response of the AMA, caused withdrawal of the bill by the doctor. The author classifies this incident as typical of medical practice, and he places the doctors in that light throughout the book.

HUMAN MICROANATOMY. By Hans Elias, M.D., and John E. Pauly, M.D., of the Chicago Medical School. Second edition. Chicago: Da Vinci Publishing Company, 1961.

This complete but brief textbook of Histology is designed according to the most modern teaching principles. Its magnificent illustrations bridge the distance from the gross anatomic through the microscopic to the ultrastructural (electron microscopic) aspect and impart understanding of organ construction and function, frequently using three dimensional methods of presentation.

BELOVED PROFESSOR. LIFE AND TIMES OF WILLIAM DODGE FROST. By Russell E. Frost. New York-Washington-Hollywood: Vantage Press, 1961. Price, $3.75.

This is a detailed biography of William Dodge Frost, noted Wisconsin bacteriologist, whose colorful lifetime was devoted to the emerging era of bacteriology and antibacterial substances. A scientist of stature, he noted among his close friends prominent physicians throughout the world. His long-standing interest in tuberculosis is recorded in these

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pages as well as a description of his many ingenious devices developed to further bacteriologic study. In addition to this, one is struck by the warm personality of a man whose well-rounded life must necessarily have been preserved for posterity.

This volume will certainly hold interest to those who are numbered among the author's students, friends or professional associates.

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DISEASE AND INJURY. Edited by Leopold Brahdy, M.D. Formerly, Physician-in-Charge, Occupational Diseases and Injuries, City of New York; Lecturer in Radiology, New York University Medical School. Philadelphia-Montreal: J. B. Lippincott Company, 1961.

The question of relationship between a given injury and a concomitant disease in this age of increasing medico-legal problems is one which at times can vex any physician. Furthermore, as the author of this treatise so distinctly observes, the relationship is not necessarily self-evident from a knowledge of disease itself. The purpose of this book is to extend to the practicing physician the broad experience of pathologists and clinicians who have frequent opportunity to encounter and decide these questions. The scope of the text includes all systems, neoplasm and is preceded by a fine chapter on general considerations.

Those who testify frequently may wish to have access to this volume.

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BOOKS RECEIVED

VIRUS MENINGO-ENCEPHALITIS. In Honour of Prof. K. Todorovic. Ciba Foundation Study Group No. 7. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Margaret P. Cameron, M.A. 11 illus. Boston: Little, Brown and Company, 1961. Price, $0.00.

SUBLUXATION AND DISTORTION OF JOINTS WITHOUT FRACTURE. Edited by Rowland Hill Harris, A.B., M.D., F.A.C.S., F.R.C.S., Fellow, Royal Society of Medicine of London; Fellow, Western Surgical Association; Member, Founder's Group, American Board of Surgery. Formerly, Chief Surgeon of Battle Creek Sanitarium, Battle Creek, Michigan. Los Angeles: San Lucas Press, 1961. Price, $6.00.

RADIATION PROTECTION AND DENTISTRY. The Postgraduate Dental Lecture Series. By Arthur H. Wuehrmann, D.M.D., University of Alabama School of Dentistry, Birmingham, Alabama. Illus. St. Louis: C. V. Mosby Company, 1960. Price, $6.50.

SOMATIC STABILITY IN THE NEWLY BORN. Ciba Foundation Symposium. Editors for the Ciba Foundation: G. E. W. Wohlstenholme, O.B.E., M.A., M.B., M.R.C.P., and Maeve O'Connor, B.A. 63 illus. Boston: Little, Brown and Company, 1961. Price, $10.00.

THE NATURE OF SLEEP. Ciba Foundation Symposium. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P., and Maeve O'Connor, B.A. 101 illus. Boston: Little, Brown and Company, 1961. Price, $10.00.

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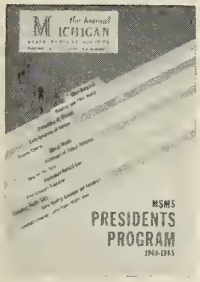
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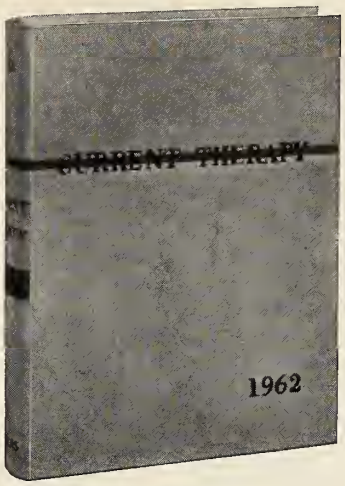
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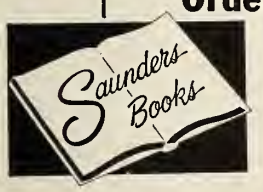
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President's Page

PRESIDENTS PROGRAM



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Our MSMS Presidents Program pledges special efforts directed toward prolonging the life span of everyone. This we hope to do by helping to solve the problems of financing health care, in providing additional aid to the aged, in developing rehabilitation programs and mental health programs.

The Presidents Program also outlines more vigorous measures designed to encourage basic research, prevent, detect and control disease, and to step up maternal health activities. This program describes our recognition of the population explosion and of the need for statewide local health department protection, as well as the need for more medical students and facilities for training them.

This statement of Michigan State Medical Society policy formulated by our delegates is a bright, attractive, positive package, some of it new, and some of it different. Basically, moreover, it is solid stuff descriptive of the kinds of programs and practices our state and local societies and their doctor members have been giving to Michigan for decades. What's more, it is newsworthy and permits us to tell our story.

To attract attention nowadays ideas must be positive, somewhat new, and of course, to hold attention and be accepted they should be good. It's all there—in the Presidents Program. We must get this message to the people.

Your officers and professional staff in the state and local societies are doing their best in the telling—about your great efforts in the doing. You must be vocal, too!

In Michigan, as elsewhere, the medical profession is demonstrating its flexibility and leadership in providing all citizens with health services which have already prolonged the active productive life span many years and promise many more.

Let's tell.

Positive Position Stated by MSMS



"The Michigan State Medical Society believes that America today has the best quality of medical care in the world. Voluntarily, the doctors have worked unceasingly in the past to improve that quality of care. And, we pledge the full cooperation of our Michigan State Medical Society today and in the future to any and all conscientious efforts to further improve scientific medicine—for the benefit of the general public."

That was the final paragraph of the statement made February 3 at the hearing of the Governor's Commission on Prepaid Hospital and Medical Care Plans made by Harold F. Falls, M.D., Chairman of the MSMS Committee on Medical Socio-Economics.

Doctor Falls, spokesman for the MSMS delegation at the hearing, was ably assisted in the question-and-answer session by Otto K. Engelke, M.D., MSMS President; O. B. McGillicuddy, M.D., Chairman of The MSMS Council; Charles J. Tupper, M.D., Vice-Chairman of the MSMS Committee on Medical Socio-Economics, and Lester P. Dodd, LL.B., MSMS Legal Counsel.

The written statements presented to the Commission for study, stressed the importance of the American free enterprise system, and described MSMS activities and stands on various issues. The positions were developed from close examination of MSMS House of Delegates actions.

Doctor Falls summarized as following the position taken by MSMS on the various issues which the Commission presented for reactions:

1. The doctors of medicine urge not only adequate financial support to Michigan's present medical schools so that the maximum number of doctors can be trained, but also we beg that action be taken *now* to plan for a third medical school.

2. The Michigan State Medical Society recommends that the legislature adopt a uniform single healing arts law. The McNerney Study concurs with our position.

3. Our 1961 MSMS House of Delegates "strongly recommended that all government agencies—including welfare agencies—reimburse all hospitals for no less than the actual per diem cost of necessary hospitalizations of all patients for whom they may be responsible." It is unfair for the general public to have to make up this difference when they utilize Michigan hospitals.

4. MSMS will continue to support the Michigan Health Council and other like organizations in their efforts to recruit students to enter the fields of medicine and the allied health vocations. We urge greater voluntary financial support from the public for such organizations.

5. The Michigan State Medical Society commends the excellent work by the doctors who serve on the medical audit and record review committees of the hospitals and county medical societies. We are proud that the medical profession in Michigan long ago assumed the leadership to insure the highest possible medical care for the

(Continued on Page 140)



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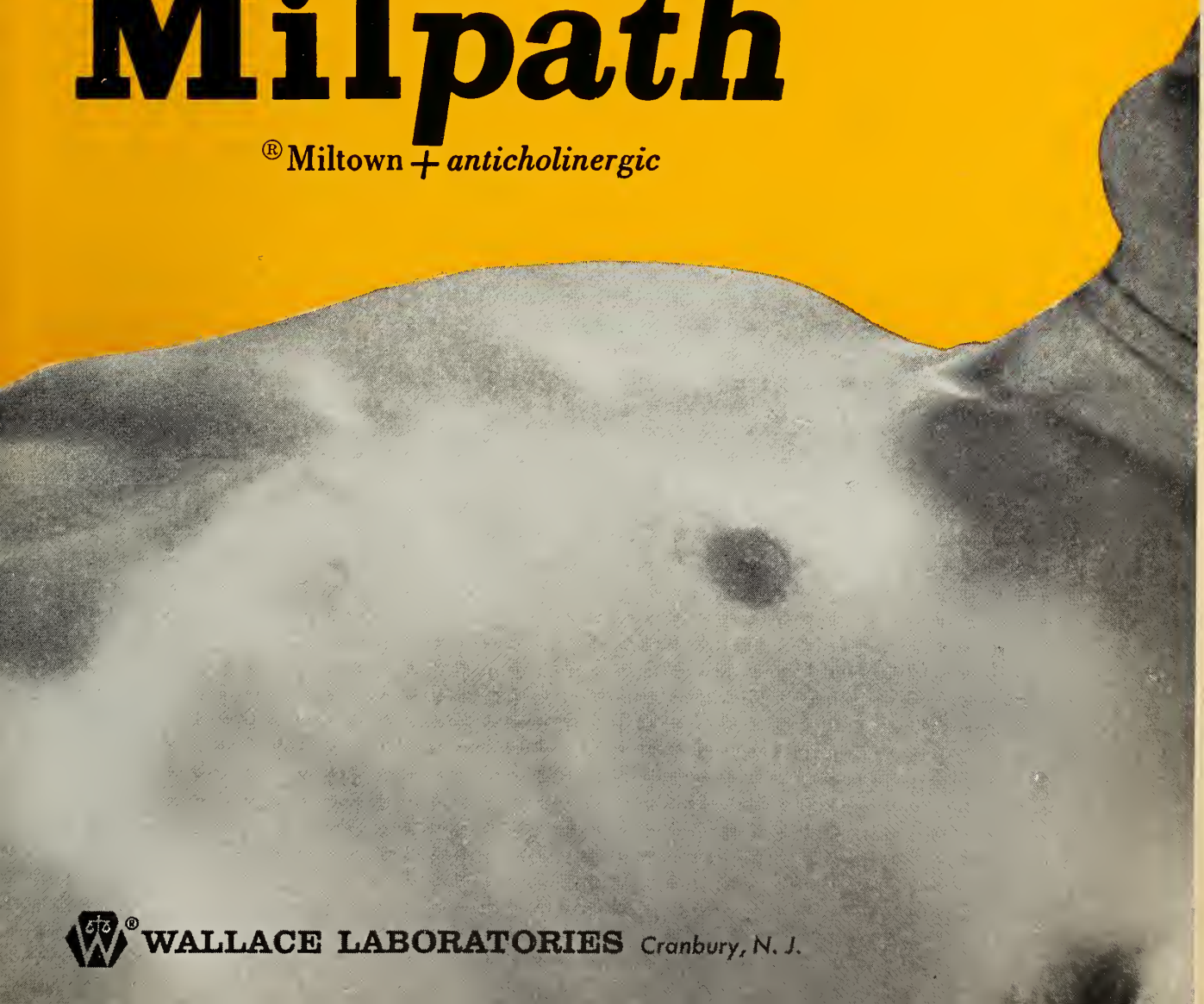
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general public. We believe that standards and criteria should be established by the doctors engaged in active, daily practice—rather than those created by physicians of professorial rank, as in the McNerney report. Such standards and criteria, furthermore, should be flexible enough to adjust to individual differences in reaction to disease and surgery—and improvements in medical care—so as to avoid any inflexible and stereotyped form of medical practice.

6. MSMS is actively engaged in exploring ways and means of improving cooperation between osteopathy and medicine.

7. Since the inception of the Michigan Blue Shield by the state medical society, we have supported the community rating principle for "our plan." We stand behind the Blue Shield service principle.

8. MSMS shall continue to encourage M.D. participation in our Blue Shield approach to prepayment medical care.

9. The Michigan State Medical Society is not in agreement with any proposal to establish a permanent commission to watch progress on the Study recommendations. We urge the legislature to study the present state agencies to see which properly could perform any additional tasks that might be deemed desirable from time to time.

New Loan Program Offered by AMA

The American Medical Association on February 14 announced details of the American Medical Association Loan Guarantee Program for medical students, interns, and residents.

The Loan Guarantee Program will co-sign loans made by banks which will extend $12.50 for each dollar in the guarantee fund. A major role of the American Medical Association Education and Research Foundation will be to establish this fund by approaching physicians and industry for contributions. A direct onetime appeal to physicians is planned which will provide the basis for support outside the profession.

When a student wishes to borrow using this plan, it will be necessary only for him to complete the application and interim note and secure the validating signature from the dean's office, Chief of Service or Program Director, as the case may be. The loan will be co-signed by AMA-ERF and processed and made by the Continental Illinois National Bank and Trust Company.

Applications and related materials should reach medical schools and hospitals in March.

Ask Members Support Disaster Care Training

MSMS members are urged to support the new "Medical Self-Help Training Program." The plan is designed to see that every American family eventually has at least one member properly trained in medical self help in the event of a national disaster.

A practical new "first aid" course that will help the family meet the most common of health and medical problems in an emergency situation has been described.

The proposed new course consists of 12 lessons covering such subjects as—radioactive fallout and shelter; hygiene, sanitation and vermin control; water and food; artificial respiration; bleeding and bandaging; fractures and splinting; shock; emergency childbirth.

AMA Reports on Survey Of County Society Meetings

An AMA survey of 1,163 of the 1,929 organized county medical societies in the nation revealed the following about county society meetings:

A total of 693 said they prefer meetings featuring scientific material, while 282 said socio-economic topics are most popular.

Monthly meetings are preferred by 777 societies, while 164 prefer quarterly meetings. Other societies meet bi-weekly, bi-monthly, semi-annually, and annually.

Well-known speakers draw the largest attendance for 708 societies, while 144 others get a larger response with a film program.

Over-all average attendance for 465 groups is between 50 per cent and 75 per cent.

Sees Medicine-Dentistry Merger

Dean William N. Hubbard, Jr., M.D., of the University of Michigan Medical School, recently forecast an eventual merger of medicine and dentistry under a common bond of science and the unifying influence of the nation's universities. He said that the growth of experimental clinical investigations, the common base of scientific discipline, the universities, and "the fundamental integrity of the human body with each segment but a part of the whole man," are some of the major influences working to unite the fields of medicine and dentistry.



Form 1040—Symbolizing tension/anxiety caused by the ever-increasing cost of living.

allays tension/anxiety...maintains acuity... promotes eunoia* for cardiovascular patients

23 patients suffering from coronary artery disease and angina pectoris, arterial hypertension, and chronic rheumatic cardiovascular disease with mitral stenosis and insufficiency were treated with **LISTICA®**, 200 mg., t.i.d.[10]

"All 12 patients who had coronary artery thrombosis with angina pectoris decreased their daily use of nitroglycerin during **LISTICA** therapy. **LISTICA** proved to be helpful in maintaining a relaxed, less tense state in the remaining 8 cases of essential hypertension and in the three cases of chronic valvular disease due to rheumatic fever."[10]

During 3½ years' clinical study in thousands of patients with a variety of complaints, investigators have not reported any toxicity, habituation or contraindications, and none of the serious side effects increasingly reported with other drugs. Most frequent reaction (mild drowsiness in 38 cases) disappeared after the first few days. **LISTICA** therapy facilitates somatic diagnosis and treatment.

L I S T I C A®

THE FIRST SELECTIVE TENSITROPIC **ARMOUR PHARMACEUTICAL COMPANY · KANKAKEE, ILL.**

[1]Hubata, J. A., and Hecht, R. A.: Review of Clinical Use of Hydroxyphenamate (Listica) in 1,759 patients. To be published in Clinical Medicine; [2]Taub, S. J.: Management of Anxiety in Allergic Disorders—New Approach. To be published in Psychosomatics; [3]Cahn, B.: Experience with a New Tranquilizing Agent (Hydroxyphenamate). Ibid; [4]Bergal, M., Beck, C., Davis, O. F., and Sloan, N.: On Use of Hydroxyphenamate in Anxiety Associated with Somatic Disease. To be published; [5]Alexander, L.: Effect of Hydroxyphenamate on Conditional Psychogalvanic Reflex in Man. Supplement to Diseases of the Nervous System, Sept., 1961; [6]Cahn, B.: Effect of Hydroxyphenamate in Treatment of Mild and Moderate Anxiety States. Ibid; [7]Cahn, M. M., and Levy, E. J.: Use of Hydroxyphenamate (Listica) in Dermatological Therapy. Ibid; [8]Eisenberg, B. C.: Amelioration of Allergic Symptoms with a New Tranquilizer Drug (Listica). Ibid; [9]Friedman, A. P.: Pharmacological Approach to Treatment of Headache. Ibid; [10]Greenspan, E. B.: Use of Hydroxyphenamate in Some Forms of Cardiovascular Disease. Ibid; [11]Gouldman, C., Lunde, F., and Davis, J.: Clinical Trial of Hydroxyphenamate in Alcoholic Patients. Ibid; [12]McLaughlin, B. E., Harris, J., and Ryan, E.: Double Blind Study Involving "Listica," Chlordiazepoxide, and "Placebo" as Adjunct to Supportive Psychotherapy in Psychiatric Clinic. Ibid.

***eunoia:** A normal mental state (Stedman's Medical Dictionary).

LISTICA—Hydroxyphenamate, Armour.

HIGHLIGHTS of The Council

Meeting of December 13, 1961

One hundred and ten items were presented to The Council at this five and one-half hour meeting, held in the MSMS headquarters, East Lansing. Chief in importance were:

- Matters of mutual interest were discussed with Michigan Medical Service President Sidney Adler, M.D. and Executive Director Sumner G. Whittier, both of Detroit, including statement being prepared by Blue Shield to present to the Governor's Commission on Prepaid Hospital Care; physician participation in Blue Shield, which was referred to an appropriate MSMS Committee for further consideration; and the relationship between the doctor and hospital. Doctor Adler and Mr. Whittier were thanked for their attendance and information.
- Resolutions 9 and 32, re public representation on Blue Shield Board, adopted by 1961 MSMS House of Delegates, were referred by Council Chairman Oliver B. McGillicuddy, M.D., to the Medical Care Insurance Committee.
- Medicare fee schedule. A report from Secretary D. Bruce Wiley, M.D., on meeting to discuss new policy of the Office for Dependents' Medical Care, to discontinue publication of Medicare fee schedules for distribution to physicians, indicated that Michigan doctors have been working very satisfactorily with published fee schedules for many years and have become conditioned to their use; doctors now in practice have the Medicare schedule and it would be unfair to new practitioners to deprive them of same; further Michigan Medical Service would be expected to administer the program using a fee schedule. Therefore, Doctor Wiley reported that the Study Committee felt the proposed policy of Medicare is not acceptable and that it is within the province of the Michigan State Medical Society to accept or reject the proposal. The Council rejected the Medicare proposal and instructed the committee to continue negotiations.
- The following committee reports were considered by The Council.
  1. Public Relations Committee, meeting of October 19, included reports on success of MSMS Exhibit at 1961 State Fair (which won first prize in its class), MSMS participation in career carnival at MSU, progress of 1961 Campaign for Freedom, MSMS Presidents Program, and a proposal to use bill boards for medical-health messages to the public. The billboard advertising proposition was re-referred to the Public Relations Committee for report to the Finance Committee of The Council.
  2. Hospital Relations Committee, meeting of October 25, reported on a joint meeting with Michigan Hospital Association to discuss recent developments in M.D. and hospital liability, possibility of a MHA membership for other than medical hospitals, MHA statement being prepared for the Governor's Commission on Prepaid Hospital Care, and principles for establishing hospital charges.
  3. Tuberculosis Control Committee, meeting of November 8, included recommendation that study be given to the establishment of a state board of health (which item previously had been referred by The Council to the Legal Affairs Committee). Possibility of setting up a survey to determine amount of skin-testing done in offices of private practitioners, expansion of TB Control Committee activities to include respiratory diseases; and a one-day sampling of state tuberculosis sanitoria occupancy. The Council approved the report with thanks noting that the question of a state board of health had previously been referred to another committee for study and report.
  4. Geriatrics Committee, meeting of November 7, covered the report of subcommittee on Care of Senile Patients in County Facilities and Nursing Homes, report on implementation of Kerr-Mills law in Michigan, development of March 1 evening program on geriatrics during 1962 Michigan Clinical Institute, and discussion on AMA Committee on Aging plans and programs.
  5. Information session for new Councilors and Officers, held November 15, was reported by Chairman O. J. Johnson, M.D., of Bay City. The Council instructed that such a session be held annually.
  6. 1962 MCI Television Committee, meeting of November 20, reviewed the development of the closed circuit television program, an important part of the 1962 MCI scientific presentations.
  7. Ad Hoc Committee for Providing Source Material on Medical Matters to Constitutional

(Continued on Page 146)

New Robanul™ signals a major improvement in duodenal ulcer therapy

From Robins research comes Robanul (generically, Glycopyrrolate), first of the "rigid-ring" anticholinergics, representing what may well be the most important advance in anticholinergic chemistry in a decade.

Clinically, both Robanul and Robanul-PH (with phenobarbital) have demonstrated a remarkable ability to provide within 90 minutes—and maintain for 6 to 10 hours—those nearly ideal pharmacologic healing conditions that mean prompt relief of ulcer pain and a successful recovery of your ulcer patient.

There are always important questions about any new therapeutic agent. Below are answers to some of the common ones asked about Robanul:

ROBANUL™

Glycopyrrolate (Robins), 1.0 mg. per tablet (U.S. Pat. No. 2,956,062)

ROBANUL™-PH

Robanul with phenobarbital, 16.2 mg. per tablet

First of all, what does "rigid-ring" mean?

Briefly, this: it describes the use of a fixed pyrrolidine pentagon, or rigid ring, which guarantees a constant 2-carbon distance between reactive parts of the molecule. In line with the "receptor site" concept of the mechanism of action of anticholinergics, this almost inflexible molecule is theoretically more likely to "fit" only certain receptor sites.

Theories are all right, but is Robanul really more selective?

Yes! Evidence of its selectivity can be seen by the surprising lack of typical secondary anticholinergic effects (dry mouth, blurred vision, etc.) that occur at the effective dosage level of 1 to 4 mg. a day. Out of 499 duodenal and gastric ulcer patients treated at this level in investigative studies, only 4.4% had complaints of moderate to severe effects.

How is it for reducing gastric acid?

One investigator[1a] found that a 2 mg. dose of Robanul lowered acid secretion 73% in one hour (compared to a basal-hour period) and 84% in two. A 4 mg. dose dropped secretion over 94% in one hour and 97% in two!

What about acidity, or concentration of acid?

In one study, glycopyrrolate produced significant suppression of pH to 4.5 or higher in 5 of 5 duodenal ulcer patients given a 4 mg. dose, 7 of 8 patients given 2 mg., and 4 of 5 patients given 1 mg.[1b]

Will Robanul depress gastric hypermotility?

In another study[2] with six subjects Robanul decreased gastric motility in every patient. Within 40 minutes after the administration of 2 mg. of Robanul, the frequency of gastric antral contractions decreased from 1 every 24 seconds to only 1 every 2½ minutes. Young and Sun[1c] found a similar effect. Moreover, their results in 7 patients indicated that Robanul, in a dose of 2 mg., did not produce delay in gastric emptying or intestinal transit.

What's the best dosage schedule for Robanul?

It should be adjusted for each patient, and this is where Robanul offers another big advantage. Its "titratability" is unmatched among anticholinergic agents. Robanul's potency makes possible a recommended starting dose of only one milligram t.i.d. Yet its selectivity usually permits much leeway for dosage adjustment upward as necessary, to achieve the most effective dose level for each patient while maintaining a low incidence of undesirable effects on other organ systems.

Is there anything else Robanul does for peptic ulcer?

Much more! For instance, 2 mg. cuts pepsin production about 50% in two hours; 4 mg., about 65%.[1a]...There is evidence that Robanul combats hormonal aspects of gastric secretions as well as vagal in many patients... ...Its activity lasts long enough to reduce acid secretion all night long.[3]...Many ulcer patients have remarked about its fast relief of pain....

One last question: Why not prescribe Robanul for your next duodenal ulcer patient and see for yourself just exactly how effective it is?

References: 1. From the New York Academy of Sciences, Conference on Peptic Ulcer, Oct., 1961. (a) H. C. Moeller. (b) D. C. H. Sun. (c) R. Young and D. C. H. Sun. 2. W. C. Breidenbach: Investigative clinical report, March, 1961. 3. I. A. Feder: Investigative clinical report, May, 1961.

Additional information upon request.

A. H. Robins Company, Inc., Richmond 20, Va.

Highlights of The Council Meeting

(Continued from Page 142)

Convention, meeting of November 30, included proposed statement of policy reflecting MSMS attitude towards inclusion in the constitution of items concerning health. The minutes were referred back to the Ad Hoc Committee for alteration in the statement in light of new information now available.

8. Finance Committee of The Council, meeting of December 13, included approval of bills payable, employes service awards (following instruction of House of Delegates), plan for necessary landscaping in front of MSMS building, publication of MSMS financial report as part of President's Letter to all members, and study of Health Department preface to its 1962-63 budget.
9. Publication Committee of The Council, meeting of December 13, included resignation of Louis J. Bailey, M.D., of Detroit, as Assistant Editor of THE JOURNAL, discussion of matters referred to this Committee by the 1961 House of Delegates (including necessity of MSMS and all its members "accentuating the positive," new and less expensive method of printing MSMS directory of members, report on SMJAB Journals Conference recently held in Chicago, and the printing monthly in JMSMS the names and addresses and where possible specialties of new members.
10. County Societies Committee of The Council, meeting of December 13, considered the Youth Fitness Resolution (No. 2) of 1961 House of Delegates, the Resolution (No. 12) re adoption by county medical societies of the Michigan Uniform Fee Schedule for Governmental Welfare Agencies, and the Resolution (No. 42) urging county societies to make Congressional contacts in Washington, D. C., where possible. Other recommendations, adopted by the House of Delegates, were considered and ordered included in next Secretary's Letter to county society officers. Further, the Committee instructed that the "Statement of Policy re Allied Health Professions and Services in Hospitals" be sent to county society officials as well as to hospital medical staffs, further that county medical societies be urged to appoint medical appeal boards, and finally that county societies be urged immediately to create medical-socio economic committees to complement the work of the MSMS Medical-Socio Economic Committee created by 1961 House of Delegates. The Committee recommended that workshops of executive secretaries of Michigan county medical societies be held twice per year, that a briefing session for committee chairmen be held annually (The Council referred this recommendation to the Finance Committee), and that in cases where a member of a county medical society is dropped from membership, that his MSMS dues be refunded. Finally, the Committee recommended that each county medical society appoint a committee to seek 100 per cent return on the forthcoming Social Security questionnaire being sent to all members by MSMS.

- Television in graduate and post-graduate medical education in hospitals. Robert M. Whitrock, M.D., of Detroit, presented an evaluation of motivating factors in graduate and post-graduate medical education and described in detail a planned pilot study using TV as a lecture tool to bring information to practicing doctors in hospitals. This was referred by The Council to an appropriate committee.

- Speaker James J. Lightbody, M.D., of Detroit, recommended that The Committee to Study Problem of Indigent Physicians, already appointed, should also be the committee to review the problem of ill physicians; this was so ordered. Doctor Lightbody distributed copies of the Social Security questionnaire to be sent to all MSMS members and conducted a pre-test of members of The Council.

- Kenneth H. Johnson, M.D., Lansing, presented maintenance report on MSMS headquarters building.

- Council Chairman O. B. McGillicuddy, M.D., presented: (a) Handling of welfare patients at University of Michigan Hospital—which according to law is not permitted to charge for professional medical or surgical services rendered welfare patients. (b) General mailing to all MSMS members re American Medical Education Foundation, made November 29. (c) December 1 hearing on Venereal Disease reporting by laboratories (subsequently, Michigan Health Commissioner A. E. Heustis, M.D., presented to The Council his views on this subject). (d) Appointment of representatives included: 1. L. A. Drolett, M.D., Lansing, and C. Howard Ross, M.D., Ann Arbor, to AMA meeting on Care of Aged, Chicago, December 15-16; 2. L. A. Drolett, M.D., H. W. Brenneman, and M. A. Riley, all of Lansing, to AMA Action Committee, January 26-27, Chicago; 3. J. R. Rodger, M.D., Bellaire and R. H. Trimby, M.D., Lansing, to National Health Forum on Accident Prevention and Emergency Care, Cleveland, March 20-22; 4. J. M. Dorsey, M.D., Detroit, to National Conference on Mental Health, Chicago, February 2-3; (e) Debate on King-Anderson legislation scheduled at Mi-

chigan State University shortly after the first of the year—The Council regretted its inability to participate in this proposed debate; (f) How to improve MSMS Section meeting programs and attendance—recommendations from a member were discussed; (g) Appointment of State Fair Committee and of Committee to Study Establishment of Loan Fund for New Physicians.

- President Otto K. Engelke, M.D., presented four matters.
  1. Appointment of A. E. Schiller, M.D., Detroit, as General Chairman for 1962 Annual Session in Detroit.
  2. Bringing MSMS history up to date, in an article to be published in the Centennial Number of THE JOURNAL in the year 1965.
  3. Appointment of Liaison Committee with Michigan State Nurses Association, as requested by the nurses.
  4. Report on American Public Health Association meeting in Detroit, the week of November 13.
- Progress of MSMS Medical-Socio Economic Committee: Chairman H. F. Falls, M.D., of Ann Arbor, reported on attendance at meeting called by Blue Shield Board on November 30, to discuss its proposed statement to the Governor's Commission on Prepaid Hospital Care; on attendance at meeting called by Blue Shield on December 8, also to discuss MMS proposed statement for the Governor's Commission. Doctor Falls reported that MSMS Research Director Richard M. Campau had completed the background fact-finding in preparation for the formulizing of the MSMS statement to the Governor's Commission, and had done detailed research on the McNerney Report which led to recommendations about which the Governor's Commission requested comment from MSMS and other interested groups at public hearings scheduled in February.
- AMPAC. O. J. Johnson, M.D., reviewed the goals and purposes of the American Medical Political Action Committee which will function independently of all medical societies and will supplement—not supplant—local and national medical association activities.
- President-Elect C. I. Owen, M.D., of Detroit, reported on U. S. Chamber of Commerce meeting held in Detroit, December 4, and also on Michigan physicians' recent contributions to AMEF.
- Legal Affairs Committee Chairman L. A. Drolett, M.D., presented progress report on proposed state medical examiner bill, proposed cancer quackery bill, little White House Conference held in Detroit, November 15, preparation of state legislative program kit, information regarding Michigan Medical Aid to the Aged, contacts made with the Michigan Hospital Association re proposed amendments to crippled and afflicted children acts, and field contacts being made by staff.
- Secretary D. Bruce Wiley, M.D., of Utica, reported on nominations to State Council of Health, on national convention of American Association of Medical Assistants (G. Millard, M.D., of Detroit and J. W. Rice, M.D., of Jackson, represented MSMS at this convention), report on Third National Conference on Medical Aspects of Sports held in Denver, November 26, attended by George W. Slagle, M.D., of Battle Creek, as MSMS representative.
- Legal Counsel Lester P. Dodd, of Detroit, reported on (1) physician liability in treating school athletes, (2) opinion on proposed revision of Michigan Department of Health rules and regulations pertaining to reporting of venereal disease, (3) opinion on physician reporting of medical condition of driver to employer, (4) statement re dangers to M.D. involved in signing Blue Shield service reports when services are not rendered by or under direct supervision of doctor who signs report.
- Dean W. N. Hubbard, Jr., M.D., of the University of Michigan Medical School, discussed progress in matters of postgraduate education; he also thanked MSMS members for the gratifying increase in contributions to AMEF.
- Executive Director William J. Burns, of Lansing, reported staff coverage of numerous meetings held during the past month, on numerous mailings made or to be made to the entire membership or segments thereof, progress report on pilot-study in Ingham County of medical aid to the aged, on housing of new MSMS research director in MSMS offices in the David Whitney House, Detroit, on details of reception for members of Michigan Health Officers Association to be held in MSMS building February 7, and on program of County Secretaries-Public Relations Seminar to be held at Kellogg Center, East Lansing, February 3.
- Public Relations Counsel H. W. Brenneman reported on the meeting of the Public Relations Society of America in Houston, November 13-15, which he attended, on recent staff activities in public relations, and on the need for appointment of 1962 news committee for Michigan Clinical Institute (The Council appointed this Committee with Jack Rom, M.D., of Detroit, as Chairman).
- Reports. (A) Report of C. J. Stringer, M.D., Lansing, MSMS representative to December 4 hearing at Michigan Department of Health on VD reporting by laboratories, was presented to The Council. (B) Report of R. H. Trimby, M.D., Lansing, on meeting of professional and allied associations concerning youth physical fitness, held in Lansing, December 7, was presented and referred to Child Welfare Committee.

THIS END UP



through all seven ages of man

VISTARIL®

effective anxiety control with a wide margin of safety

in the "frantic forties"—For many patients in their "frantic forties," the pace never slackens—may even accelerate—while tensions multiply and physical resources dwindle. Out of this seedbed of stresses and anxieties grow much of the alcoholism, psychosomatic illness, and sympathetic overactivity of the middle years.

In each of these areas, VISTARIL is often effective alone or as an adjunct to other therapy. For example, in his series of 67 patients, King[1] found that 62 showed remission of anxiety, tension, nervousness and insomnia, as well as alleviation of symptoms associated with various functional and psychophysiological disturbances. He concludes that VISTARIL is well suited for use in the practice of internal medicine.

In the emergent situation, VISTARIL, administered parenterally, is a valuable aid to the physician in managing patients who escape psychic conflict via alcohol. According to Weiner and Bockman,[2] who obtained beneficial results in 81% of 175 patients studied, hydroxyzine (VISTARIL) may well be considered a tranquilizer of choice in the management of the acutely agitated alcoholic.

1. King, J. C.: Int. Rec. Med. 172:669, 1959. 2. Weiner, L. J., and Bockman, A. A.: Sci. Exhibit, A.M.A., Ann. Meet., New York City, June 26-30, 1961.

VISTARIL® CAPSULES AND ORAL SUSPENSION
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VISTARIL® PARENTERAL SOLUTION
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IN BRIEF VISTARIL®

VISTARIL, hydroxyzine pamoate (oral) and hydroxyzine hydrochloride (parenteral solution), is a calming agent unrelated chemically to phenothiazine, reserpine, and meprobamate.

VISTARIL acts rapidly in the symptomatic treatment of a variety of neuroses and other emotional disturbances manifested by anxiety, apprehension, or fear—whether occurring alone or complicating a physical illness. The versatility of VISTARIL in clinical indications is matched by wide patient range and a complete complement of dosage forms. The calmative effect of VISTARIL does not usually impair discrimination. No toxicity has been reported with the use of VISTARIL at the recommended dosage, and it has a remarkable record of freedom from adverse reactions.

INDICATIONS: VISTARIL is effective in premenstrual tension, the menopausal syndrome, tension headaches, alcoholic agitation, dentistry, and as an adjunct to psychotherapy. It is recommended for the management of anxiety associated with organic disturbances, such as digestive disorders, asthma, and dermatoses. Pediatric behavior problems and the emotional illnesses of senility are also effectively treated with VISTARIL.

ADMINISTRATION AND DOSAGE: Dosage varies with the state and response of each patient, rather than with weight, and should be individualized for optimum results. The usual adult oral dose ranges from 25 mg. t.i.d. to 100 mg. q.i.d. Usual children's oral dose: under 6 years, 50 mg. daily in divided doses; over 6 years, 50-100 mg. daily in divided doses.

Parenteral dosage for adult psychiatric and emotional emergencies, including acute alcoholism: I.M.—50-100 mg. Stat., and q.4-6h., p.r.n. I.V.—50 mg. Stat., maintain with 25-50 mg. I.V. q.4-6h., p.r.n.

SIDE EFFECTS: Drowsiness may occur in some patients; if so, it is usually transitory, disappearing within a few days of continued therapy or upon reduction of dosage. Dryness of mouth may be encountered at higher doses.

PRECAUTIONS: Drowsiness may occur in some patients. The potentiating action of hydroxyzine should be taken into account when the drug is used in conjunction with central nervous system depressants. Do not exceed 1 cc. per minute I.V. Do not give over 100 mg. per dose I.V. Parenteral therapy is usually for 24-48 hours, except when, in the judgment of the physician, longer-term therapy by this route is desirable.

SUPPLIED: VISTARIL *Parenteral Solution* (hydroxyzine hydrochloride)—10 cc. vials, 25 mg. per cc. and 50 mg. per cc.; 2 cc. ampules, 50 mg. per cc. VISTARIL *Capsules* (hydroxyzine pamoate)—25, 50, and 100 mg. VISTARIL *Oral Suspension* (hydroxyzine pamoate)—25 mg. per 5 cc. teaspoonful.

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EMOTIONS CAN AFFECT ACCIDENT TENDENCY

A person's emotional state may influence his susceptibility to accidents, according to Stanford G. Rogg, M.D., Wilmington, Delaware.

Dr. Rogg reported on a study which delved into the thought processes of 35 persons before they were involved in industrial accidents in the current (November) Archives of Environmental Health, published by the American Medical Association.

Interviews with the accident victims revealed that an accident "may be an unconscious physical solution of an emotional problem," he said.

"We have all heard the statement that certain individuals tend to take their work home with them," he commented. "The reverse is often true. Some people tend to take homes to work with them."

Several cases in which emotion played a role in an accident were cited by Dr. Rogg.

In one instance a man twisted his ankle getting out of a truck as he suddenly shifted direction to avoid walking around the front of a truck. The man explained that he had avoided walking in front of trucks ever since he had been hit by a truck as a child.

In another case, an employee who was annoyed at his helper's carelessness overlooked a safety precaution himself in handling some chemicals. Although an accident did not occur, a violent explosion could have resulted. When interviewed, the employee said:

"I was so mad with the helper, I knew something would go wrong. I guess the strain was too much for me waiting for him to do something wrong so I went ahead and did it myself."

In another instance, a man fractured a finger while working on a machine and explained he was still "burned up inside" as the result of an argument with his wife the night before.

Dr. Rogg concluded that "individuals do become emotionally charged under some circumstances in a manner that may predispose them to accidents."

* * *

PLAN THYROID WORKSHOP

The clinicians of the Thyroid Service of Wayne State University, Detroit Receiving Hospital, will sponsor a Thyroid Workshop at Woman's Hospital, Detroit, March 31. The seminar will examine clinical problems in the light of fundamentals and to focus attention upon areas requiring further investigation.

Interested physicians may register by writing Robert Mack, M.D., Woman's Hospital, 432 East Hancock Avenue, Detroit 1.

Say you saw it in the Journal of the Michigan State Medical Society

Strong Facts Against King-Anderson Plan

Persons over 65 are better able to meet their medical needs than some other age groups, an employes benefit consultant for General Electric Company told a recent meeting of the American Society of Insurance Management.

Russell H. Hubbard, Jr., the GE official, said advocates of plans to finance aged health care through social security continue to "trot out the correct but misleading fact that 60 per cent of persons over 65 have incomes less than $1,000."

He said census data on which the fact is based shows that 74 per cent of the under $1,000 income group were women, and that 77 per cent of all women over 65 had incomes under $1,000. Additionally, 60 per cent of all women of all age groups had money incomes of less than $1,000.

Mr. Hubbard said a more meaningful fact is that the median income of family units where the head of the family was over 65 and working was $5,300, and the median income of all urban family units where the head was over 65, working or not, was more than $3,300.

Mr. Hubbard said insurance actuaries dispute the cost estimates advanced by proponents of the King-Anderson bill, which would use social security funds to pay for the aged's medical needs.

He said the actuaries believe a payroll tax of 2.3 to 2.9 per cent would be required to meet the added costs, rather than the 0.5 per cent tax proposed by the sponsors of H.R. 4222. The actuaries also estimate a first year cost of $2.1 to $2.4 billion and an ultimate cost of $6 to $7.7 billion.

* * *

Increase Hospital Research

Passage of the Community Health Services and Facilities Act of 1961 makes it possible for Congress to appropriate as much as $10 million annually for hospital research—an increase of 800 per cent over the former limit of $1.2 million.

The total annual medical research expenditure is approximately $700 million, compared with about $3 million for hospital research. Industry spends $6.5 billion, of which the electric industry alone spends $1.2 billion.

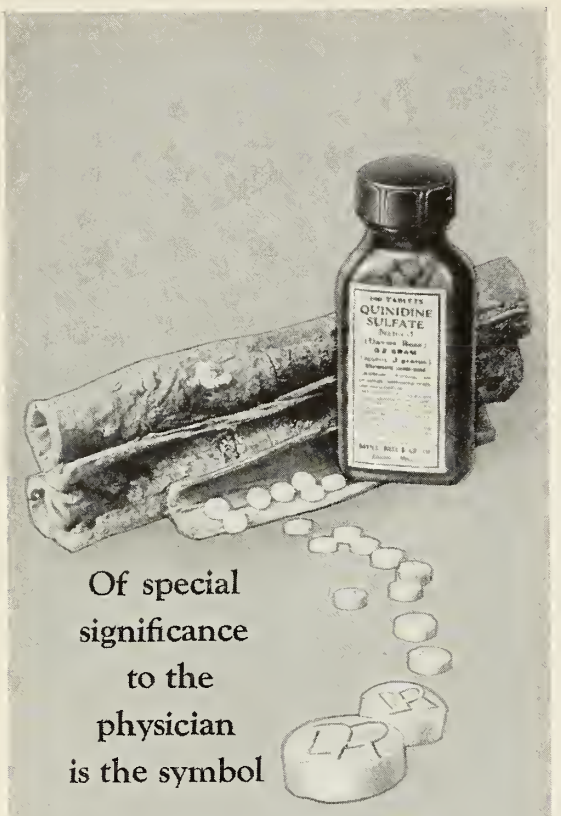
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Blue Shield Enrollment Up

Enrollment in the nationwide Blue Shield Plans passed the 48,400,000 mark as of September 30, 1961. Total membership in the 75 medical-surgical Blue Shield Plans amounted to 48,415,337, as a result of a gain of 1,330,349 new members during the first nine months of 1961.

Blue Shield now covers one out of every four Americans, and almost 15 per cent of the total Canadian population.





Of special significance to the physician is the symbol

When he sees it engraved on a Tablet of Quinidine Sulfate he has the assurance that the Quinidine Sulfate is produced from Cinchona Bark, is alkaloidally standardized, and therefore of unvarying activity and quality.

When the physician writes "DR" (Davies, Rose) on his prescriptions for Tablets Quinidine Sulfate, he is assured that this "quality" tablet is dispensed to his patient.

Rx Tablets Quinidine Sulfate Natural
0.2 Gram (or 3 grains)
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Q-7

Blue Cross "Optimistic" for Home-care Plan

Michigan Blue Cross reports that both results and public reaction to a pilot "home-care" program are "exceeding our most optimistic hopes" after 20 months of operation.

"We find that almost without exception the patients like it; the doctors we've checked on who used home care for patients are for it 9 to 1; and the Visiting Nurse Association is behind it 100 per cent," Wm. S. McNary, Blue Cross executive vice president, declared.

Mr. McNary added: "We find doctors reporting it does speed recovery and make for a better all around convalescence for those whose illness fits medically into the home-care pattern."

Edwin L. Harmon, M.D., Blue Cross medical director, reports in the 20 months, more than 800 cases were handled from nine Detroit and one out-state hospital (Sheldon Memorial at Albion).

Over 60 per cent of the persons involved were under 65. As to the kind of cases comprising the home-care patients, a substantial sampling showed cancer led with 21 per cent, followed by heart and circulatory diseases, 14 per cent; diabetes, 13 per cent; and fractures and stroke 8 per cent each.

Blue Cross Plans Review Health Care for Aged Position

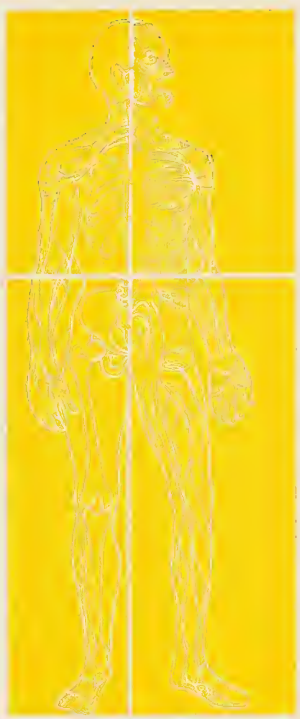
At the recent first annual meeting of the Blue Cross Association, the member plans voted unanimously to approve a recommendation of their newly-elected president, Walter J. McNerney, that the "problems of the health care of the aged be thoroughly reviewed before any alteration in the Blue Cross position is initiated."

The Blue Cross Plans agreed with President McNerney that "there have been an increasing number of significant studies and proposals recently concerning the financial and social problems of the aged. It is important that these be weighed in a re-evaluation of the present position."

Mr. McNerney stated that the staff of BCA would accept the responsibility of digesting and interpreting these proposals, conducting investigations into those areas where information is lacking, formulating alternative programs for the health care of the aged and placing such proposals before a future meeting of the member Plans of the BCA. At the present time, the BCA Plans are on record in favor of the Statement on the Health Care of the Aged approved in 1958 by the House of Delegates of the American Hospital Association.

Say you saw it in the Journal of the Michigan State Medical Society

MSMS Presidents Program Pushed



The ambitious "MSMS Presidents Program" is gaining momentum.

A major portion of the 1962 MSMS County Secretaries-Public Relations Seminar focused on an explanation of the MSMS Presidents Program . . . and the MSMS leaders who testified before the Governor's Commission on Prepaid Hospital and Medical Care Plans stressed the importance of the project.

The participants at the 1962 County Secretaries-Public Relations Seminar heard the Presidents Program details from A. H. Hirschfeld, M.D., Detroit, and Hugh W. Brenneman, MSMS public relations counsel. Among his comments, Dr. Hirschfeld stressed that "it is not enough to add years, we must add good ones . . . this implies not only an orthodox approach to the purely physical problems of the aging, but also to consider research into the psychological, sociological and economic status of these people."

Appearing before the Governor's Commission, MSMS spokesman Harold F. Falls, M.D., declared:

"Michigan doctors in 1960 initiated a tremendous undertaking, called the 'MSMS Presidents Program'; designed to add useful years to the life span of every Michigan resident. This plan provides for more intensified activity in many categories, specifically to utilize to the fullest extent the advances in public health, basic research, maternal and child health, prevention of disease, early detection of disease, mental health, rehabilitation, disease control, help for the aged, emergency medical care, financing of health care, and the meeting of the need for medical students and medical school facilities."

Doctor Falls also told the Commission:

"The Michigan State Medical Society is seeking to work with all health-interested organizations in this aggressive five-year program to offer every citizen an opportunity to add useful years to life."

The MSMS Presidents Program And Instruction in Schools

Wallace Ann Wesley, Hs.D.

Chicago, Illinois

EVEN though the Resolutions of the Presidents Program are not aimed at the public school alone, the school program *is* included. As you note the composition of this panel, you can see that the health services of a school; the family and school relationship in responsibility; and the dental program will be considered in addition to this presentation. It is logical then that the instruction program should be considered in order to round out the influence of the Presidents program.

"Distribute these resolutions to *all* teachers in order that they can make these a part of the instruction program in Michigan," summarizes the remarks that follow.

Every teacher and citizen knows that it is the responsibility of the school to educate the young. Even though many services are provided in the school setting such as school lunch and health services, these are rightly pursued because of the contributions they make to the health instruction of the individual, as well as providing for the protection of and the contribution to student health. These resolutions support this philosophy by encouraging health education, health screening and providing for a healthy environment for students.

These resolutions will be more effective if the young citizen, through the instruction program, understands them and learns *why* the program should be supported in philosophy and in a practical way—through his work and his money—now and in the future.

Aid to Instruction

This Presidents Program is a boon to instruction because it says what the medical society is "for"! The reasons why an individual or an organization are "for" something can be a basis for excellent instruction. What people or organizations seem to be "against" is too often speculation and poor instruction.

The fact that the program gives credit and support to existing programs; points out individual responsibility; and makes co-operation suggestions that are specific; creates an attitude and affords an experience in real democracy for students. A fundamental we need to emphasize more and more in our schools.

Resolution 1 urges all counties have local health departments. It is an excellent example to support the suggestion that all schools and teachers (not just science and health, or just high school teachers) need to have a copy of these resolutions for classroom instruction because these departments will come about *when* all citizens understand them and are aware of their worth.

As you know all states have areas that do not have local health departments. This is not characteristic of the financially poor states alone. Several local departments exist without medical guidance (police force often responsible). Why can this be true? Is it because citizens are not well enough informed to know why their support is needed with votes and with money? Do most citizens understand the function of a health department?

A current example which would indicate lack of citizen knowledge of public health is that of the phenomenally rapid building of thousands of houses adjacent to cities. These areas have great health hazards because septic tanks placed so close together saturate the soil to the extent that a heavy rain storm often backs up sewage into the basements. This health hazard could have been prevented by a builder being aware of health needs or by citizens supporting a health department strong enough to demand that planning go into additions.

Most persons "just do not think" about these health hazard possibilities in a mushrooming addition or in many other public health situations. Since they do not know, or think, it would seem that citizen educa-

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Remarks related to the thirteen resolutions printed in THE JOURNAL of the Michigan State Medical Society, January, 1961, at the Michigan Health Council-State Health Conference, Flint, Michigan, May 24, 1961.

Wallace Ann Wesley, Hs.D., Department of Health Education, American Medical Association, Chicago, Illinois.

tion in the schools and in the community is somehow lacking in effectiveness. Therefore, there is a need to make future citizens more aware.

Facts concerning the benefits of and the need of a local health department should be a part of the social studies units of the school instruction program. Too often the study of municipal government has been about the departments that exist and their general function. These functions seldom tied to local problems. This is fact teaching many persons are pushing for today, but somehow it doesn't foster future active citizen support in students.

It would be better teaching if the learning included *why* (under what circumstances) the various departments of local government came into being, and these facts learned by a discussion of current local problems that relate to the student—such as the example in point, sanitation and a growing community.

Perhaps another reason why citizens seldom (except in a crisis) think of the functions of a health department is that our college curriculums too often insist prospective teachers be informed about health and health organizations, but feel the students specializing in other professions and vocational pursuits do not need this information. Yet, these other persons are also future leaders of the community—the ones who will vote for or against the formation of a local health department. If they do not understand the benefits, they may not see the need and not be willing to support in spirit or financially!

This explanation really suggests: The informed or uninformed school student (the future adult citizen) will eventually support or break the efforts of this wonderful Presidents Program by his attitude and his understanding. Let's teach him now!

If we wait to educate each adult group *as adults*, we will be forced to run faster in the adult program in the education of the public in the future because of increasing numbers. Why not educate them when they are young?

This is sufficient discussion on Resolution 1. I do not intend pursuing it further except to repeat—the Presidents Program's effectiveness will be enhanced now and in the future *if* copies are put into the hands of every teacher (including grade school) so that she knows *what you are for!* So that students can discuss *why* the program is worthy of support!

All of the resolutions lend themselves to social studies (citizenship) teaching, science instruction, health classes, community and school coordination, safety, physical education, and many other areas of instruction.

The Presidents Program on maternal and child health suggests classes for future parents reaching down into the high school age group. These classes will be much more effective *if* the student has learned a proper attitude about being a parent from his parents. If in school he has gradually learned about growth from the "guppies" in first grade through human growth in the upper grades, these classes will be more effective. We teach people from "where they are"—i.e., from the background they bring to class. If it is meager, our efforts are necessarily curtailed compared to our success with persons with a fuller background.

The resolutions concerned with cooperation in the community on the control of disease, the related function of voluntary agencies, the problems of the aged, and education are vital to the education of future citizens. Much of this material is of current interest and of concern to students.

For example, the smoking studies of the Cancer Society indicate many persons form the habit of smoking at the junior high age level. Too, contrary to the "old saw" that persons smoke to show they can resist authority, more smokers start at this early age because it is *convenient* at home. The significant fact that in one study 20 per cent of the students quit smoking because of learning about the facts of cancer related to smoking seems to indicate understanding of facts, peer discussion, and getting to the smoker early with facts is one of our greatest current needs. The findings of these various organizations for health definitely should be a part of the school instruction program.

With everyone, medicine, education, voluntary and official agencies cooperating, many lives may be saved.

The understanding of the purpose of voluntary agencies is a part of education. The voluntary agency is a wonderful American possession.

It is unfortunate that many schools have decided fund-raising campaigns should not come into the school. Are these schools losing an opportunity to practice democracy in supporting a worthy venture, the voluntary agency?

It's true research handled by these organizations can be done by the government. When taken over by the government, the agency loses one of its main functions and citizens do not feel everyone is contributing to a cause for the good of all. Is it just the research that counts? Or is it the phenomena of people in a democracy *voluntarily* supporting a cause? Let's not lose this wonderful freedom of choice in the name of research! How then can a school utilize a fund drive for perpetrating this principle of democ-

racy? How could a fund drive be made an education experience? First a class decides:

(a) Whether it will participate.

(b) How it will earn its contributions. (Not just get the money at home.)

(c) What it should know about the voluntary organization. Why it exists. Its contributions.

(d) How the class will handle its funds. This affords education: in organization, in arithmetic, in the election of committees and chairmen, in accomplishing something as a group.

* * *

Aid from professional persons is offered to mental health projects in the various communities. Even though the resolution on rehabilitating does not specifically mention mental health patient rehabilitation, I assume mental health service is also available to rehabilitation personnel.

Teachers, too, would profit much from assistance from the professional personnel. They would welcome in-service training in the mental health area. A series of talks related to them and to their responsibilities for the mental health of students one of their greatest concerns is sorely needed. It's an area in which they feel least adequate.

Topeka, Kansas, does this type of in-service training for teachers and parents. Their project is the best example that I know in the United States and might serve as a guide for a community to be of great help in the area of mental health for its future Michigan citizens.

As is pointed out in the resolution, increased counseling, facilities, and personnel are needed. I am sure counseling services would be more effective with an in-service plan for teachers who can best supplement the work of counseling.

In conclusion, as a representative of many teachers, I say thank you to the Michigan Medical Society for these wonderful resolutions. For giving Michigan teachers an aid to improved, practical instruction.

Please keep us informed of these resolutions as they progress. Their success is part of the understanding we need for teaching effectively.

Moving forward in this program *does* depend on the support of the future citizen. Let it be part of his education through the schools.

This is a sensible forward-looking program. My best wishes for wonderful success.

Animal Pets

Pets pose one of the most difficult problems of environmental control for allergic persons. A pediatric allergist, Dr. Jerome Glaser of Rochester, N. Y., states: "There should be no animals with fur or feathers in the household of an allergic individual, and even stuffed animals with fur or feathers should be eliminated." This warning holds true whether or not skin tests are positive and whether or not it is noted that the animal causes allergic symptoms. The reason is that persons who are susceptible to allergy "have a strong tendency to become sensitized to epidermals and one never knows just when it will happen." He also points out that "it is not only the dander of the animal which may cause trouble but also the saliva," which dries on the floor and mixes with the dust.—*American Practitioner*, October, 1961.

The MSMS Presidents Program And the Early Years

Goldie B. Corneliuson, M.D.
Lansing, Michigan

THE MICHIGAN State Medical Society has set high goals in its Presidents Program:

1. To add five years to the general life expectancy of the people of Michigan by September, 1965.
2. To promote good health at all ages resulting in greater potential productivity and consequently greater happiness for Michigan people.

How can we work toward the attainment of the first goal to add years to the general life expectancy of the people of Michigan? The general life expectancy in Michigan is essentially the same as the average for the United States or 70.4 years. Most of us realize that the greatest improvement in the general life expectancy in the United States has resulted from the relatively rapid decrease in the number of deaths of infants and young children. This improvement in death rates has been due to:

1. A higher standard of living for more families
2. Better sanitation
3. The control of communicable diseases
4. Improved medical and hospital care, and
5. A more enlightened public.

But there is still much room for improvement in Michigan's death rate during the early months of life. Statistically speaking, saving the life of an infant will add 70 years of living as compared with 10 years of living when the life of a 60-year-old person is saved, and consequently will have seven times as great an impact in improving the general life expectancy of the people of Michigan.

In 1958, about 5,000 Michigan infants died before reaching one year of age. Our infant mortality rate was 24.6 as compared with Sweden's rate of 15.8. If we had had as low an infant mortality rate as Sweden, we would have had about 1,800 fewer infant deaths in that one year. If, during the five-year period of the Presidents Program, we could save this many infants each year, we would add over 600,000 years of living and if, in addition, we prevented all the deaths due to accidents of persons up to 20 years of age (approximately 800 per year), we would add 208,000 more years of living, making a total of over three-fourths of a million years of living. So it is evident that the first objective of the Presidents Program—to add five years to the general life expectancy in Michigan—can be most readily accomplished by attacking the conditions which cause death during the early months and years of life.

A comparison of the maternal and infant mortality rates for 1900 and 1958 will indicate progress made during the intervening years. In 1900, 103 mothers per 10,000 live births died from causes associated with childbirth as compared with about three in 1958. In 1900, 1570 infants per 10,000 live births died before reaching one year of age as compared with 246 in 1958. The reduction in infant deaths occurred primarily in babies from one through eleven months of age, leaving us with the major challenge of decreasing perinatal deaths, deaths around birth, or deaths occurring before, during and shortly after birth. The magnitude of this problem is shown by the fact that the number of perinatal deaths (stillbirths and deaths during the first month of life) is equal to the total number of deaths occurring during the next 40 years of the life span.

An equally great challenge is the prevention of perinatal morbidity, which manifests itself in the thousands of children born each year who are handicapped for life by cerebral palsy, blindess, deafness, epilepsy, mental retardation and deviate behavior patterns. The same factors which cause death in one infant may cause defect or life-long disability in another. For parents, perinatal casualties mean heartaches, financial sacrifice and difficult family and social adjustments; for children, physical suffering and mental anguish; and for society, the expenditure of millions of dollars

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Dr. Corneliuson is Director, Division of Maternal and Child Health, Michigan Department of Health.

Presented at Michigan Health Council-State Health Conference, Flint, Michigan, May 25, 1961.

on rehabilitation, treatment and often lifetime custodial care.

The prevention of these conditions, insofar as possible, will help us realize the second objective of the Presidents Program: To promote good health at all ages in order to attain greater potential productivity and, consequently, greater happiness for Michigan people.

It is generally agreed that the laying of a healthy foundation, begun before conception and continued throughout childhood and adolescence, is fundamental to the attainment of this second goal. How do we help to lay this healthy foundation during the early years of life? First, by promoting research; second, by giving consideration to socio-economic factors and their relationship to health; third, by promoting public education; and fourth, by making every effort to improve the health care of mothers and children.

Because of the importance of research in reproductive failure, I will spend more time on this point than on the other three which are of equal importance but probably better known. Research in perinatal casualties is costly and very complex, but most rewarding. One costly research project which is currently underway was initiated in 1957 under the auspices of the U. S. Public Health Service. With more than ten million dollars in federal funds, a big sum of money unless compared with the billions spent on atomic or space research, this study was established as a cooperative venture to be carried out on more than 40,000 women and their babies in sixteen leading medical centers, over a period of at least five years. An idea of its complexity may be gleaned from considering the many disciplines involved in the study—geneticists, epidemiologists, statisticians, psychiatrists, psychologists, pathologists, sociologists, obstetricians, physiologists, pediatricians, neurologists, cardiologists, chemists, anesthesiologists, ophthalmologists, otolaryngologists and nurses as well as technicians, research associates and students.

Already important discoveries have resulted from the project. I shall mention two:

1. A previously disregarded lowering of the blood sugar occurring shortly after birth in children of mothers who had toxemia of pregnancy may account for some cases of permanent brain damage. This tragedy may be prevented by the appropriate administration of sugar to these newborn infants.

2. Excessive bilirubin in the blood stream may cause brain damage in newborn babies. New discoveries are now making it possible for these cases to be recognized and for such damage to be prevented.

Other important perinatal research during the past 15 years, with which many of you are familiar, has resulted in the prevention of blindness due to retrolental fibroplasia in premature infants and the prevention of mental retardation due to PKU. Eighteen major hospitals throughout the United States collaborated in a study which was coordinated by a Michigan institution, the Kresge Eye Institute of Detroit. Among the children born in Michigan in 1953, there were 77 cases of blindness due to this cause reported to the Michigan Department of Health. With the practical application of research information, only one case has been reported among children born in 1958.

Perinatal morbidity and mortality studies are a type of research which should be conducted in all Michigan hospitals. The American Medical Association, the Michigan State Medical Society, and the Michigan Department of Health are cooperating with local physicians and hospitals in the development and conduct of perinatal studies. The American Medical Association manual on this subject states that the broad objective of a perinatal casualty study is "to improve the production of normal human beings. The elimination of needless deaths and damage during the process of reproduction is the ideal for which we should strive." Studies are currently under way in hospitals in a number of Michigan cities, including Saginaw, Grand Rapids, Lansing, Flint, Royal Oak and Detroit. Medical staffs engaging in such studies report that they are excellent educational tools for practicing physicians, residents and interns, that they result in improved patient records, an increase in the per cent of autopsies and improved pediatric care. The conduct of perinatal casualty studies by all hospitals is a goal which we hope may be realized some day in Michigan.

Our second point was that socio-economic factors must be considered in laying a healthy foundation during the early years. Progress in child health is inseparably linked with social and economic progress. Studies in Michigan and elsewhere have shown that perinatal loss is one of the most sensitive indices of the social and economic level of a community—the lower the social and economic status the higher are the perinatal mortality and morbidity rates. There is a marked correlation between perinatal casualties and the father's occupation, the mother's education and private versus ward patients. Yankauer and others* in New York State found this relationship between social stratification and health practices in

*American Journal of Public Health, June, 1958.

child-bearing and child-rearing. Sometimes motivating the underprivileged to utilize health services is an even greater challenge to physicians and public health personnel than is making the care available. We have not yet learned how to motivate a large percentage of the underprivileged to participate in expectant parent education or to accept prenatal care made available to them. Many of them, today, present themselves at Michigan hospitals without any prenatal care whatsoever, and among these the maternal and perinatal mortality rates are the highest. In some instances, the quality of prenatal and child care available to the underprivileged is substandard and so inconveniently located that a mother cannot be blamed for not taking advantage of it.

Our third essential in laying a healthful foundation is public education. This includes expectant parent education which has been strongly supported and promoted by members of the Michigan State Medical Society's Maternal Health Committee and by many individual physicians, nurses and educators as well as by official and voluntary agencies throughout the state. Education of the public regarding the importance of maternity care has helped bring about acceptance of prenatal care by the middle and upper socio-economic groups but we have not yet reached the underprivileged.

Many physicians frequently express concern about the lack of preparation for parenthood of their young patients. They are advocating that more colleges and high schools teach courses in family living. They strongly recommend that more emphasis be placed on nutrition of adolescents to help them improve their individual health and to lay a healthful foundation for the children they will bear in a few years. And I mean a few years, as half of the girls in first marriages in Michigan are less than 20 years of age, and one in every three Michigan mothers bearing a first child is less than 20 years of age. Many Michigan doctors are giving freely of their time in community expectant parent programs, and they are assisting schools with the development of family living courses. They help with inservice training programs for teachers and they act as health consultants to schools.

As our fourth point, we should make every effort to improve the health care of Michigan's mothers and children:

1. We should aim at adequate health supervision of all Michigan children from conception through adolescence, preferably in the physician's office, but when, and if this is not feasible, other provisions should be made.

2. As 7 per cent of Michigan babies are born prematurely and as prematurity is the leading cause of death among infants, we should develop premature centers for the tiniest prematures in strategically located hospitals with staffs specially trained in premature care. There should be better referral by practicing physicians for public health nursing follow-up of premature infants in the home after discharge from the hospital.

3. All hospitals caring for children should evaluate their pediatric services utilizing the check list based on the American Academy of Pediatrics manual "Care of Children in Hospitals" prepared by a committee with representation from the Michigan State Medical Society, Michigan Branch of the American Academy of Pediatrics and the Michigan Department of Health.

4. As the maternal mortality rate among Negroes in Michigan is two and one-half times higher than that of the white population and the perinatal mortality rate is nearly 70 per cent higher, greater effort should be made to improve the quality and availability of medical and hospital care for Negro mothers.

5. Michigan needs more adequate coverage by local health departments, a stronger school health program including more school health councils, a more extensive accident prevention program, a well-planned program for the health care of migrant children and medical personnel—more doctors, nurses and auxiliary medical personnel to give adequate care to children and adults.

The MSMS Presidents Program And Prevention in the Middle Years

J. K. Altland, M.D.
Lansing, Michigan

THE YEARS 20 to 65 are an opportunity to give prevention an acid test. As you have just heard, prevention is the primary emphasis in the early years and it is still considered where the greatest good can be accomplished. This is true of prevention of communicable disease, correction of physical defects and the establishment of good health habits so in the middle years the guidance system is already in operation so to speak. However, it is during these years when it is often determined whether we are going to be "old at 50" or "young at 75." Some things are more important than ever, such as exercise and good eating habits. If people permit themselves to become obese and have established the eating habits that aid this situation, they are usually not eating a good diet in terms of the kinds of food that they are consuming. There has to be moderation in exercise, in eating and drinking. If the person burns the candle at both ends at say age 35, it is more likely he will have little fire left at 75 in most instances.

What are some of the major specific dangers in the middle years? If we look at the situations that kill people during these years, we find that the greatest killers are accidents, cancer, suicide, and homicide in the age period 25 to 34. In the ages 35 to 44, the killers we find are heart, cancer, accidents, stroke and suicide. Some of these things are preventable. In fact, all of them are to a greater or lesser degree. If we wish to apply some preventive knowledge and way of life to at least forestall ill health in these middle years, it is important to have a personal physician, one that you know, can confide in, and have confidence in and, conversely, one that knows you. It is necessary to have a periodic health appraisal and at that time find out your state of health and also to become acquainted with some of the indicators that might show you that you are headed for trouble and again seek your physician's advice.

There are community methods of early detection. Some communities and industries are establishing what is called selective screening. This embodies a battery of examinations and laboratory tests which strongly indicate the presence or absence of possible disease or diseases which can be of assistance to your family physician in making a final diagnosis. Experience with the people being screened this way has shown that there are many people who thought themselves well who are discovered to have suggestive signs of previously unknown disease. Industry has done this type of thing in terms of pre-employment examinations and periodic reappraisal of their employees.

Some other community efforts at prevention in the middle years include the constant surveillance of the environment of workers in industry and agriculture. Industrial dusts can be very injurious as can many other air contaminants. Some compounds when in contact with the skin can be more than just annoying. State and local health departments working with industry are constantly on guard to see that the worker environment is not detrimental.

Likewise, there is constant research in the fields of nutrition, preventive serums and vaccines, sanitation, air pollution and other fields. The application of this research is important if the health for the middle years is to be protected. Every person needs to take the responsibility for his education in matters of health. There is a great deal of information in our popular magazines, newspapers and mass media about health education. One of the problems is that some products that are promoted and sold or some "programs for living" do not have a sound basis. This is commonly called "quackery." Again, it is necessary for each individual to determine what is fact and what is fancy, and the best source for making this separation is your personal physician or your local health department.

There are opportunities to work as volunteers with the many existing health agencies in communities. This work, in itself, is a form of education in becoming acquainted with the objectives of the various voluntary health agencies and helping other people to understand these objectives. The sincere interest of these community health agencies are based on facts and

Dr. Altland is Associate Commissioner, Director of Medical Services, Michigan Department of Health.

programs geared to protect the health we have and to prevent the occurrence of some of these killers that were mentioned earlier. Suppose it might be said that everyone, with all the information available, is living in a veritable informational pressure cooker because for the most part people want to know, they want to do, and they want to share in health knowledge and health services.

Finally, those of us who are interested in health have an obligation to set an example not only in our own homes, but our community and those with whom we associate. Good preventive practices in the early years, continuation of these practices in the middle years, including the assuming of our full responsibility for those young people entrusted to us, can go far to improve the quality of the exer-expanding lifespan.

One Disease May Mask Other Ills

Does modern medical technology conquer a disease like smallpox only to create a new one?

Two pediatricians at The University of Michigan Medical Center deny this assertion. Although there appear to be "new diseases," it is only because they have been in the past subordinated by the older ones, say Dr. Ernest H. Watson and Dr. George H. Lowrey.

"Until less than 100 years ago, people suffered from diseases such as plague, cholera, smallpox, malaria, and syphilis, which we now have largely 'under control'," explained Doctor Watson. "In the shadow of these more prominent diseases, the viral diseases we have today, such as polio and infectious hepatitis, went unrecognized."

Although in this day of medical "miracles" everyone has had his bout with measles, the common cold and the "flu," our Stone Age ancestors probably never experienced an encounter with one of these bugs.

As hunters and gatherers, they lived scattered throughout the environment, were few in number, and didn't come into contact with each other enough to keep the germs going.

Civilization apparently gave infectious diseases their real start. Beginning about 100 years ago, advanced technology permitted better health techniques, and some diseases were either wiped out or brought under control through vaccination and sanitation, and civilization had redeemed itself for a time.

But, recently, a rise of a set of "new diseases" has been noted. Antibiotics have brought about new resistant strains of bacteria, and diseases caused by viruses seem to be more varied and more frequent.

Doctor Lowrey noted that the medical profession "is very much aware of the problem of imbalance created by bacterial mutant strains which are resistant to antibiotics." He expressed confidence, however, that the profession can continue to develop new methods to combat each resisting strain as it appears.

He commented that one of the latest antibiotics, staphcillin, created about a year ago, has been very successful in treating previously resistant types of the staphylococci bacteria.

Many of the so-called "new diseases," he said, merely reflect our relatively recent discovery of how to differentiate between viruses.

Hypofibrinogenemia in Pregnancy

Joseph Stern, M.D.
Detroit, Michigan

DE LEE, in 1901, was the first to mention a bleeding problem in pregnancy at the time of delivery. Dieckman, in 1936, was the first to report a case of abruptio placenta in which there was prolonged clotting time and hypofibrinogenemia. Therapy was essentially nihilistic up until the past five or six years since which time this problem has really been nearing a solution.

The purpose of this paper is to define the problem and to discuss its management.

Normal and Abnormal Values

The non-pregnant adult woman normally has 250-300 mg. per cent of serum fibrinogen. Early in pregnancy the serum fibrinogen averages 320 mg. per cent rising to 440 mg. per cent during the 37th week and 450 mg. per cent at term. The range is 300 to 700 mg. per cent. It is this increased blood fibrinogen that is responsible for the elevated sedimentation rate in normal pregnant women. The average plasma volume at term is about 3100 cc. Therefore, the total circulating fibrinogen is about 14 grams[1] with a range from 8 to 16 grams.

For the first four or five days post partum there is normally present a circulating fibrinolytic factor. This factor is most active during the first four post partum hours and thereafter rapidly disappears.

Pathophysiology

It is generally agreed that the basic cause of hypofibrinogenemia is the thromboplastinemia resulting from intravascular infusion of amniotic fluid and/or placental tissue that results in massive intravascular clotting and hence the conversion of fibrinogen to fibrin. This depletes the circulating fibrinogen resulting in bleeding. Another mechanism in certain clinical situations producing hypofibrinogenemia is the release of fibrinolytic enzymes and thromboplastins from necrotic decidua that actively destroys the fibrinogen.

From Sinai Hospital of Detroit, Department of Obstetrics and Gynecology, David Feld, M.D., Chief.

One must carefully note that hypofibrinogenemia may manifest itself as bleeding, as already cited, or as a shock syndrome. This shock may occur with or without active hemorrhage. When it does accompany active bleeding it is well out of proportion to the blood loss. The cause of this "obstetric shock" is most probably a fibrin-gel embolization, in essence, a clotting within the terminal artioles of the entire body.[2] It is this shock that the older obstetric literature referred to as "obstetric shock." When shock occurs, a fibrinolysin is released which is absorbed by the newly formed fibrin, destroying it. In the presence of progressive shock the liver cells remain anoxic and fail to replace the already depleted fibrinogen. The kidney also becomes anoxic resulting in anuria and occasionally in bilateral cortical necrosis.

Clinical Situations

Hypofibrinogenemia has been associated with abruptio placenta, classically, and abruption accounts for about 70 per cent of the reported cases. It also occurs with amniotic fluid embolism and with long intra-uterine retention of a dead fetus (missed abortion or fetal death); eclampsia or severe pre-eclampsia, criminal abortion, retained secundines and hydatidiform mole.

The three commonly associated conditions point out the hyperacute, the acute and the chronic processes that are seen. Remembering that the clinical picture may predominate in either shock or hemorrhage we see in amniotic fluid embolism the hyperacute variety in which a patient with ruptured amniotic membranes suddenly becomes dyspneic, promptly goes into shock and quickly dies. In most cases the fibrinogen level is well below the critical level of 100 mg. per cent.

In premature separation of the normally implanted placenta or placenta previa associated with hypofibrinogenemia there forms an intra-uterine clot which gradually or suddenly increases in size, the defibrinogenation occurring as the clot grows. As the clot retracts and the serum is squeezed from the clot and into the general circulation there also occurs dilution

of the circulating blood, thus increasing the hypofibrinogenemia already present.[1]

In contradistinction to abruptio placenta, where the danger period is measured in hours, an intra-uterine dead fetus or missed abortion presents necrotic decidua which insidiously releases fibrinolytic enzymes which results again in hypofibrinogenemia. It is within this latter group that we may have ample warning and can exercise prophylaxis. Beginning from the third week after fetal death the serum fibrinogen levels should be taken weekly and if the level should drop to 150 mg. per cent labor should be induced or the fetus removed by hysterotomy. Meanwhile the patient should report any evidence of bleeding such as epistaxis, ecchymosis, melena or hematuria.

In all situations of hypofibrinogenemia there is a definite correlation between the duration of the process causing the hypofibrinogenemia and the severity of the hypofibrinogenemia. For example, the longer a placenta is allowed to abrupt, the greater will be the degree of hypofibrinogenemia if this state does develop.

Case Reports

The following cases are presented as representative of the hyperacute and the acute varieties of hypofibrinogenemia:

Case 1.—Mrs. S.S. This thirty-nine-year-old white woman, Gravida I, Para 0, whose expected date of confinement was March 25, 1960, was admitted to Sinai Hospital of Detroit on February 9, 1960 complaining of severe generalized abdominal pain of eight hours duration. Her prenatal course was entirely normal. She had had a fertility study in 1958 and in August of 1958 had a multiple myomectomy performed. There were at least four incisions into the endometrial cavity at the time of surgery.

Examination at the time of admission revealed a board-like, very tender uterus enlarged beyond the expected size. No FHT's were heard. Cervix was closed and uneffaced. There was no vaginal bleeding. Blood pressure was 140/90. A diagnosis of abruptio placenta was made and blood samples drawn for fibrinogen revealed no clotting in thirty minutes. Blood fibrinogen level was 20 mg. per cent.

Low cervical Caesarean section was performed under Cyclopropane anesthesia after administering 2 grams of fibrinogen. A stillborn boy was delivered from a Couvelaire uterus which contained 1500-2000 cc. of clotted and unclotted blood. Because the uterus contracted well with oxytocics the uterus was repaired. The fibrinogen level was 40 mg. per cent during the section. The catheter was draining adequate amounts of bloody urine. The hemoglobin was 8.5 grams per cent.

After supportive therapy and blood transfusions the hemoglobin was 8.5 grams per cent twelve hours later and the fibrinogen level was 125 mg. per cent. In 24 hours the fibrinogen level was 620 mg. per cent. Urinary output was always adequate. Over the next few days the patient recovered quite well and was discharged on the tenth hospital day in excellent condition.

Case 2.—This patient was a twenty-seven-year-old Negro woman, Gravida VI, Para IV, whose last menstrual period was January 7, 1956. Her expected date of confinement was October 14. She had had four normal spontaneous deliveries and one miscarriage at four months. Her prenatal course was normal. Laboratory and x-ray examinations revealed no abnormalities. She had had an appendectomy performed in 1948 for acute appendicitis and a D. and C. in 1954 for the incomplete abortion. There was no known medical diseases or allergies known. This patient was admitted to Sinai Hospital at 10:30 P.M. on October 6, 1956 in desultory labor. Rectal examination revealed the cervix to be not dilated. It was a vertex presentation, floating, with the membranes intact and there was no vaginal bleeding. Laboratory examination was entirely within normal limits. For the next 24 hours there were mild, irregular contractions interspersed with periods of inertia. There seemed to be very little progress of labor. At 6:30 P.M. on October 7, 1956, the patient was returned to the labor room with regular strong contractions every six to seven minutes. Fetal heart tones were good. A rectal examination revealed the cervix to be 2 cm. dilated, the head still floating and still no progress of labor. The patient continued this way throughout the night followed by a period of infrequent contractions. Early the next morning, on October 8, 1956, the patient was once again having regular uterine contractions every six to seven minutes apart. Rectal examination revealed a vertex presentation at -3 station. The cervix was 2 cm. dilated, soft and ripe. A flat plate of the abdomen was taken to rule out any abnormal vertex presentations such as an occiput posterior, face or brow presentation with abnormal deflection attitudes which might retard fetal descent into the pelvis. The x-ray examination, however, showed a single fetus at term with the head presenting at the maternal inlet in the occiput right anterior position. The placenta was on the anterior wall of the uterine fundus. At 11:35 A.M. on October 8, 1956, the patient was taken to the delivery room and sterile vaginal examination was performed. The membranes were ruptured with release of a not too remarkable amount of clear, yellowish tinged fluid with no blood. The cervix at this time was found to be ripe and 2 cm. dilated, station -3. Heart tones after surgical rupture of the membranes were of good quality, regular, 128 per minute. Approximately five minutes after rupture of the membranes the patient complained of abdominal pain and pelvic pressure. At this time, she was having a uterine contraction. There suddenly followed a convulsive episode with development of hypoxia, cyanosis and coma. The blood pressure at this time was unobtainable. The pulse was rapid, approximately 112, weak and very irregular. Auscultation of the heart revealed a gallop rhythm and multiple ectopic beats. Auscultation of the lungs revealed the rapid development of very coarse rales over both lung fields. Intravenous fluids were started in order to try to bring up the blood pressure but the patient died within minutes. Approximately six minutes after death, the fetal heart tones still being audible, a post

mortem classical Caesarean section was performed with delivery of a viable male infant. Post mortem examination of the mother was performed six hours after death. Autopsy diagnosis was amniotic fluid embolism of lungs and defibrination of the blood. There appeared acute cor pulmonale, marked. Of interest in this case was the finding of occasional suggestion of sickling red cells in many sections. There is lack of any clinical history of sickle cell disease. This woman may have had a sickle cell trait, the red cell defect becoming apparent when severe anoxia occurred.

Diagnosis

The most important point in making this diagnosis is a high index of suspicion. The clinical findings most often noted early in the defibrinating process of the shock syndrome has been a persistent tachycardia of 110 to 120.[3] Once it is suspected simple bedside procedures are more than adequate to make the diagnosis. Various tests may be conducted at the bedside with the simplest of materials. These tests not only make the diagnosis but also guide the therapy. A stable clot will form as long as the fibrinogen level is about 150 mg. per cent. The critical level when no clot will form is 100 mg. per cent.

1. *The clot observation test.* 5 cc. of maternal blood is withdrawn from any convenient vein and allowed to rest in a test tube at room temperature. This blood should normally clot within between six to twelve minutes. The clot should remain intact for twenty-four hours. If no clot forms within thirty minutes, the fibrinogen level is under 100 mg. per cent. After the clot has stood for thirty minutes it is wise to tap the tube gently. If the clot dissolves or breaks apart, the fibrinogen level is assumed to be between 100 and 150 mg. per cent. Normally a clot will comprise between 33 per cent and 45 per cent of the total venous sample after retraction is complete (24 hours).

2. *Bedside determination of a heparin-like factor.* In this test 5 cc. of the patient's unclotted blood plus 5 cc. of normal unclotted blood are mixed together. If a heparin-like factor is present no clot will form.

3. *Test for fibrinolysin.* 5 cc. of the patient's blood is mixed with 5 cc. of clotted normal blood. If there is lysis of the normal clot there is a fibrinolysin present.

Management

When a diagnosis of hypofibrinogenemia is made:

1. Take blood for type and crossmatch, at least 2000 cc, also for a hemoglobin, hematocrit and a serum fibrinogen.

2. There should be a routine cut-down in either upper extremity and an intravenous drip begun very slowly. Here care must be taken concerning the volume of fluid infused. Pulmonary edema is often prominent in this syndrome and phlebotomy may actually be necessary, especially when the shock syndrome predominates.

3. Almost continual blood pressure recordings and estimate of blood loss to keep up with the patient's need.

4. Three tests referred to before; the clot observation test, the test for circulating fibrinolysin or the test for heparin-like factor should be repeated every thirty minutes, depending on which is appropriate, until the time of delivery and every hour for four hours thereafter.

5. Combat shock in the usual manner. Do not, however, use Dextran as Dextran itself has resulted in hypofibrinogenemia. Morphine and atropine are appropriate in cases of acute pulmonary embolism.

6. Fibrinogen and blood. Fibrinogen is administered in an intravenous drip of 2 to 4 grams every hour as guided by the clot observation test.

(a) The danger of hepatitis theoretically in patients given fibrinogen is 50 per cent but actually it occurs in 3 per cent to 5 per cent. Some advocate giving prophylactic gamma globulin every month for six months because of the danger of hepatitis.

(b) One cannot count on blood alone to replace the fibrinogen because each 1000 cc. of whole blood contains only 1.5 grams of fibrinogen.

(c) Massive transfusion with citrated bank blood also may result in massive thrombocytopenia. Therefore, 10 cc. of 10 per cent calcium gluconate should be given intravenously after each 2000 cc. of whole blood to combat excessive sodium citrate. The infused blood should be fresh blood and that used in plastic bags to preserve platelets.

7. If there is a heparin-like factor present protamine sulphate in 20 mg. to 50 mg. doses should be given intravenously.

8. If there are fibrinolysins present Hydrocortisone, 100 to 200 mg., intravenously should be used initially and followed up in the usual 'steroid' manner of gradual reduction of dosage.

9. If the patient has been in shock or is severely anemic, she should be placed on broad spectrum antibiotics because of tissue anoxia.

10. Accurate recording of intake and output is essential. A Foley catheter should be inserted post partum.

11. The pregnancy should be terminated as soon as patient is out of shock and coagulation difficulty is being resolved. The amniotic membranes should be ruptured surgically as soon as the diagnosis of abruptio placenta is made in order to decrease the intra-uterine pressure and at the same time to facilitate delivery. Pitocin may be indicated or contra-indicated, depending on the severity and extent of the abruption.

Sequelae and Complications

1. Congestive heart failure from overloading the venous system.

2. Bilateral renal cortical necrosis.

3. Pituitary necrosis resulting in a Sheehan's syndrome.

4. Adrenal necrosis with the production of adrenal crisis. (The latter three occur chiefly after delivery in the recovery phase of the shock. They occur either from emboli or from hypotension).

5. Cerebrovascular accidents may occur either on an ischemic basis or on a hemorrhagic basis.

6. Death has occurred from a spontaneous rupture of the liver from a subcapsular hepatic hematoma.

7. Hepatitis occurs in 3 per cent to 5 per cent of those patients treated with fibrinogen. This hepatitis usually occurs three to four months after the episode.

8. Maternal mortality from all causes in which fibrinogen has been used is from 10 per cent to 15 per cent.

9. Any type of transfusion reaction.

Summary and Conclusions

1. The etiology, mechanisms, management and complications attending hypofibrinogenemia have been discussed.

2. A routine bedside approach to the problem should be followed in each case in order to handle each patient individually.

3. In general, the greater the duration of the process the more severe is the complication.

4. The major points of therapy include serial determinations of the bedside diagnostic as described above, combating shock by the usual means. The administration of fibrinogen, Hydrocortisone or Protamine as needed and last, but probably the most important, is the evacuation of the uterus.

Acknowledgment

I am indebted to Dr. Milton Goldrath for permission to use one of his cases. (Mrs. S. S.)

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Reasons Why Body Care Is Important

Engineers are prone to talk of the efficiency of modern machines. But no machine has ever been constructed that is so efficient and so safe as man himself when safe practices are followed.

Where can we find a pump as perfect as the human heart? If the boss treats it right, it stays on the job more than 600,000 hours, making 4,320 strokes and pumping 15 gallons an hour.

We have no telegraphic mechanism equal to our nervous system.

No radio is so efficient as the voice and the ear.

No camera is so perfect as the human eye.

No ventilating plant is so wonderful as the nose, lungs, and skin.

No electrical switchboard can compare with the spinal cord.

Ask your patients, Doctor: "Isn't such a marvelous mechanism worthy of the highest respect and the safest care possible?"

Cutaneous Sporotrichosis and Candidiasis Occurring in a Patient on Prolonged Steroid Therapy

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SINCE the introduction of corticosteroids for therapeutic use in 1949, there has been noted an increase in the emergence of serious complications, including infections. Other therapeutic agents have also been evolved, which, together with steroids, have permitted patients to survive at least long enough to develop complications that otherwise might never have become manifest. Noteworthy in this regard are the infectious diseases seen during the course of debilitating and neoplastic illnesses. Among these are fungus infections. This presentation deals with one such infection due to Sporotrichum Schenckii.

To the author's knowledge, this is the first reported case of cutaneous sporotrichosis (and candidiasis) complicating steroid therapy. The source of the former infection remains obscure but was probably nosocomial consequent to continuous hospitalization for approximately three months prior to the patient's death.

Case Report

The patient (Wayne County General Hospital No. 247263) admitted May 6, 1959, was a white man, aged forty-two, a former bottler in a beer factory. He was last known to be in good health eight years prior to admission when he began to consult physicians for weakness, arthralgias, swelling of the hands and feet and intermittent bouts of diarrhea. His consumption of alcohol had been excessive for many years. He was told he had rheumatoid arthritis and was treated with aspirin, whirlpool baths and adrenal steroids. He was able to work only with great effort and eventually became incapacitated, although not bedridden. He stated that a duodenal ulcer had been discovered with x-rays two years previously. About two months before admission, he was again hospitalized for an abscess of the right leg; this was incised and drained, but the area became secondarily infected with staphylococcus aureus and eventually the soft tissues of almost the entire leg were sloughed off. He was treated with an ulcer diet, NPH insulin 30 units a day, steroids and antibiotics. On the day of transfer to Wayne County General Hospital, the patient spiked a fever to 103° and appeared extremely toxic.

Upon arrival, the patient appeared to be an obese, cushingoid, pale man who appeared acutely and chronically ill and in respiratory distress. The skin was very thin and the muscles felt boggy. The neck was supple without neck vein distention. There were bilateral basilar râles. Heart sounds were distant, and no murmurs were noted. There were abdominal scars where skin grafts had been taken for the right leg. No ascites was noted and no masses or enlarged organs could be felt in the abdomen. Pitting edema of the hands was noted, and there was fusiform swelling of the interphalangeal joints with marked limitation of motion. A necrotic ulcer of the nailbed of the first digit of the left hand was noted. Along the radial aspect of both arms anteriorly were subcutaneous nodularities extending from wrist to anticubital fossae. There was an extensive necrotic purulent area involving most of the right leg. No enlarged lymph nodes were found.

Laboratory values included the following: Hemoglobin 10.6 Gm./100 ml., white count of 13,000/cu. mm. with normal differential, microscopic pyuria and hematuria without glycosuria or proteinuria; total serum protein of 5.0 Gm./100 ml. with albumin 2.0 Gm./100 ml. and globulin of 3.0 Gm./100 ml.; fasting blood sugar was 135 mg./100 ml.; B.U.N. 21 mg./100 ml. There was a negative latex particle test for rheumatoid arthritis on two occasions. Chest film revealed left ventricular enlargement and upper mediastinal widening interpreted as being due to dilated mediastinal vessels. Radiographs of the hands were compatible with rheumatoid arthritis and generalized osteoporosis. Medial calcifications of radial and ulnar arteries were seen. An electrocardiogram revealed sinus tachycardia and a conduction defect on the posterolateral wall.

Clinical Course.—Within a few days after admission, the patient became afebrile and sufficiently improved so that he was ambulatory and could tend to his own personal care. Continuous soaks were applied to the necrotic suppurating right leg with little improvement, and subsequently, superinfection with pyocyaneous organisms and candida albicans occurred. Although he was initially subjectively improved,



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he developed indolent, necrotic ulcers arising from the previously described nodularities of the forearms. These became purulent and painful. Cultures were taken and preliminary smears revealed gram positive cocci and yeast cells which eventually grew out as typical colonies of

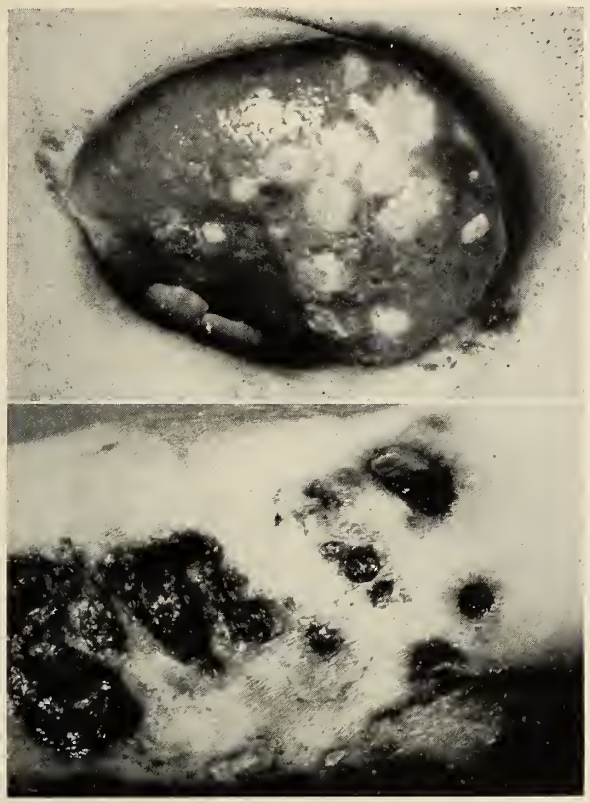


Fig. 1. *(above)* Tongue lesions of oral candidiasis.
Fig. 2. *(below)* Forearm lesions of cutaneous sporotrichosis.

Sporotrichum Schenkii. Skin tests for histoplasmosis, blastomycosis, and coccidioidomycosis were negative. Despite local potassium permanganate soaks, continued penicillin and chloromycetin therapy, the patient grew weaker and edema of the upper extremities increased. Blood cultures were negative for bacteria and fungi. Lesions of candidiasis also appeared on tongue and oral mucous membranes and were cultured. Initial treatment of the former lesion included oral iodides and local application of an iodine solution and icthymol, and 1 per cent gentian violet was applied to the oropharyngeal cavity for the latter. Because by this time the patient appeared almost moribund, parenteral amphoterricin B was begun. After 12.5 mg. of the drug had been infused over a four-hour period, the patient had a hypotensive episode accompanied by marked air hunger and mottling of the trunk and lower extremities necessitating cessation of the drug. All measures to combat shock failed, and the patient expired quietly.

Autopsy Findings.—(1) Generalized cardiomegaly (500 Gm.) without evidence of infarction or coronary sclerosis. (2) Atelectasis of both lower lobes of the lung with consolidation of the right upper and right middle lobes. (3) Multiple superficial ulcerations of the esophagus, stomach, and duodenum. (4) Laennec's cirrhosis (1450 Gm.). (5) Splenomegaly (210 Gm.) and generalized lymphadenopathy without characteristic lesions. (6) Atrophy of the adrenals (10 Gm.) with markedly thinned cortices. (7) Gross and histologically normal pancreas. (8) Oral and cutaneous lesions compatible with sporotrichosis and candidiasis.

Discussion

Considerable laboratory evidence has been gained demonstrating the adverse effects of steroids on experimentally produced fungus infections in animals. Widespread mycotic dissemination and decreased survival times have been shown in hosts given steroids and infected with H. capsulatum,[2] C. neoformans,[3] C. immitis,[4] and C. albicans.[5] Torack,[1] in an excellent review article, noted that candidiasis, aspergillosis, and mucormycosis complicated the courses of thirteen patients terminally ill with neoplasms, blood dyscrasias, and rheumatoid arthritis. Many received steroids in large doses and all received antibacterial agents. Smith and Cleve[6] cite cases of candidiasis and histoplasmosis that developed in patients with fatal resistant bacterial sepsis and hemolytic anemia who were given steroids. Key and Magee[7] have noted a conspicuous increase in the number of fungal infections in patients treated with multiple antibiotics, cytotoxic agents, and steroids in a large general hospital. In their study, done prior to 1948, no cases with lymphomas had complicating fungal infections, while today the picture has changed considerably. Differences, of course, in survival times because of the introduction of the newer chemotherapeutics, must be borne in mind.

That adrenal hormones lower host resistance and greatly reduce the inflammatory response is well recognized;[8] rabbits given steroids and infected intracutaneously with group A hemolytic streptococci rapidly succumb to these organisms to which they are ordinarily very resistant.[9] Microscopically, their tissues show no evidence of inflammation at the site of injection; the immunologic response is altered as evidenced by depressed antibody synthesis and lympholysis;[10] there is also altered leukocyte activity and, perhaps, a detrimental vascular effect;[11] arteriolar tone is increased with resultant tissue ischemia and edema; the quality, intensity, and duration of the leukocytic response is adversely effected as shown by poor endothelial sticking of the white cells and diminished[12] or unsatisfactory phagocytosis;[13] Menkin[14] states that chemotaxis is suppressed because of suboptimal release of leukotaxine from cells unable to fully respond to the inflammatory result.

To implicate the effects of steroids alone in promoting the development of fungal overgrowth would not be the full truth. As mentioned above, the development of new and potent antibacterial agents, many possessing a wide spectrum of activity, has proceeded at a great pace. By their frequently local irritative, and bactericidal effects, they alter the normal flora of the body and thereby promote the multiplication of ordinarily saprophytic fungi.[15,16] When cytotoxic agents and deep irradiation are used, generally they are used in conjunction with the above drugs for malignant diseases, and their tissue deleterious effects are legion.

The patient described here is particularly interesting because he demonstrated most of the complications that have been reported with corticosteroid therapy, namely: cushingoid features, evidence of negative nitrogen balance, osteoporosis, upper gastrointestinal ulcerations, diabetes mellitus requiring insulin therapy, generalized edema with effusions in all body cavities, and infections. That sporotrichosis developed terminally is unusual because of the clinical features of Sporotrichum Schenckii. The vast majority of all recorded cases have resulted from inoculation of the organism into the skin by direct contact with contaminated material. This has most frequently been some form of vegetation.[17] No source for this could be found after carefully reviewing the history of the patient reported here. Unfortunately, cultures of the internal organs were not taken post-mortem. Yet, the picture was so typically that of the cutaneous form of sporotrichosis that it is highly unlikely that widespread dissemination of the disease occurred. Microscopic examination of an ante-mortem skin biopsy failed to reveal the characteristic cigar-shaped bodies, and sections of viscera post-mortem likewise failed to reveal them. This lends circumstantial support against dissemination. The typical cigar-shaped bodies are not found in the specimens from ulcers in the chancriform type of infection but are readily identified by hematoxylin and eosin or PAS stain from the internal organs in the disseminated sporotrichosis.

What part the steroids contributed to his superinfection, of course, remains speculative. Nevertheless, the evidence gained linking steroids to infections in just such debilitated patients, and the occurrence of bacterial pneumonitis, candidiasis, and sporotrichosis in this patient lend support to a cause and effect relationship.

Summary

A case of cutaneous sporotrichosis (and candidiasis) complicating the course of a patient chronically ill with rheumatoid arthritis who had been on adrenocortical steroids for a prolonged period is presented. How host parasite relationships are altered by steroids and their effect on development of superinfection are briefly discussed.

Acknowledgment

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Adenoma and Cancer of the Rectum and Colon

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Etiology

THE EXISTING confusion about colorectal adenomas is largely the result of their variable biological behavior pattern—which is inevitable—and partly the result of the failure of many writers to state the precise basis for their diagnosis—which is avoidable. To eliminate the existing confusion concerning adenomas of the rectum and colon, it is imperative that writers on adenomas should refer to or state the criteria of their microscopic examination so that the reader will readily know the basis for their diagnosis. The clinician should effect a close liaison with the pathologist and the radiologist and use the same language. It would be ideal, of course, if the pathologists would agree among themselves as to the diagnostic criteria and would adopt a universal classification. Different pathologists frequently render contrary views on the same specimen. Thus, when a slide was submitted to four pathologists the following four diagnoses were suggested: (1) benign adenoma; (2) adenocarcinoma, Grade I, benign; (3) carcinoma *in situ*, and (4) atypical adenoma.

Classification

A complex classification is undesirable and unjustified. Considerable confusion is created by the use of such terms as "malignant adenoma" and "adenocarcinoma, Grade I" which at the same time are purported to connote a "benign" process. Infrequently, adenomas graded by some pathologists as adenocarcinoma Grade I or II have, upon reexamination of the slides, been regarded as benign by our pathologists. A two-year follow-up of twelve such cases failed to reveal the occurrence of cancer in ten patients following the conservative disposition of the polyps, and in two patients who refused to have their adenomas treated. The term "carcinoma *in situ*", a new growth in which the malignant cells are situated within the area of the epithelium of origin, unfortunately carries the misleading connotation that this tumor may remain quiescent forever, instead of for a variable period of time. A more intensive search through multiple sections all too often reveals small foci of frank invasive cancer in specimens that masquerade as carcinoma *in situ*. Recently, an attempt has been made to discard the grossly descriptive term "villous" and substitute for it the microscopically descriptive term "papillary." Unfortunately, papillary adenomas, though a justifiable pathologic description, are too readily confused with anal papillae which are benign fibroepithelial polyps. Nor does the term "papillomatous" appear to be an improvement. The present choas of names has clouded our ideas and thoughts. These matters are not only of academic but also of practical import. Gross descriptive terms have effective teaching value. Because of these considerations, I have advocated this simple clinical classification of adenomas: (1) single or multiple (scattered—acquired or familial); (2) pedunculate or sessile; (3) smooth or villous, and (4) benign or malignant. These terms have vivid meanings to all clinicians.

Malignancy in adenomas is best described as noninvasive or invasive. The determining boundary line of invasion is the muscularis mucosae. Involvement of the lamina propria without invasion of the muscularis mucosae is not considered invasive cancer. The term "invasive adenoma" has been abandoned and superseded by the term "cancer" in order to avoid the misleading benign connotation. The term "premalignant or precancerous" has crept into the

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literature dealing with adenomas. It is believed that the concept of a "precancerous" lesion is essentially a statistical one indicating a greater probability of developing cancer. About the only precancerous aspect of the colon is the colon itself.

Familial Tendency

Unlike familial polyposis, which is a heredofamilial disease transmitted by genes or caused by gene mutation and behaving as a Mendelian dominant and as both dominant and recessive in successive generations, neither solitary nor scattered multiple discrete adenomas of the colon are considered hereditary. However, our studies of two families, though extremely incomplete as many of the members of the involved families have not been examined, and recent studies reported by others, suggest that discrete solitary or scattered adenomas may occur in several generations of the same family. Four additional families are now under our scrutiny. For the present, these observations impose an almost impossible obligation on the clinician to perform sigmoidoscopy, and, if possible, also proper roentgenography, on all members of the family of patients with discrete adenomas of the rectum and colon.

Biopsy

In adults, I now decidedly advise against fractional biopsy: I now practice "total biopsy" or the removal of the entire polyp at its base in one piece or in several large segments. The complete removal of an adenoma at its base is the primary and minimal justifiable course of action. Diagnostic temporizing with an adenoma by piecemeal removal of bits of tissue at various intervals of time amounts to halfway measures that are inexcusable.

In common with pathologists of experience, I maintain great reservations about the determination of the histologic character of adenomatous polyps solely with the use of a frozen section technique since the best pathologists can be deceived in both directions, the benign and malignant. As with other lesions, a benign-appearing adenoma in the frozen section may prove to be malignant in the paraffin or permanent section and vice versa. Mature and sound clinical judgment is therefore of incalculable value in these problems.

Pathololgy

Smooth Adenomas.—An adenoma is a pedunculate or sessile glandular structure showing proliferation of intestinal epithelium without invasion of the muscularis mucosae or lymph channels or blood vessels. Histologically, adenomas consist of hyperplastic, relatively mature or well-differentiated epithelial cells of uniform appearance supported by a central core of loose connective tissue. They contain stalks of varying numbers, sizes, shapes, and lengths, which differ from the normal colonic mucosa in which a single layer of cells lines the crypts and covers the surface. Some of the cells contain a rich complement of mucus and closely resemble normal colonic epithelium. Other cells contain little or no mucus, are stratified, and exhibit a fair number of mitoses. Unless secondary infection or ulceration has taken place, no significant inflammation is found in adenomas or their supporting tissues. However, when pronounced dedifferentiation is present, the lesion is considered an early, preinvasive or noninvasive malignant transformation, which may occur as a small focus (called carcinoma *in situ* by some authors). This reversion to the more immature or undifferentiated type of cell may be indicated by atypism, large vesicular mitoses, and excessive stratification. When there is invasion of the muscularis mucosae or of the blood vessels or the lymph tracts, the lesion is regarded as a frank carcinoma. The term "invasive adenoma" should be abandoned and superseded by the term "cancer" in order to avoid the misleading benign connotation, as already stated.

Villous Adenomas.—Villous adenomas originate in the cells of the surface epithelium in contradistinction to the lobulated polyp which arises from the cells lining the intestinal mucous glands. I have encountered enough (more than twenty) villous adenomas in patients in the third and fourth decades of life so as to seriously question their alleged occurrence only in the older-age group of patients. Also, I have quite frequently encountered the combination of villous and smooth areas in the same polyp (tumeur composée), especially in the short-pedicled polyp, as well as a combination of scattered pure villous and pure smooth adenomas in the same patient. The finding of small-sized pure villous adenomas is not exceptional. This is probably due to my special opportunity to endoscope patients early in the course of their disease, or these lesions are found incidentally during routine sigmoidoscopy. Some 10 per cent or more of the villous adenomas that I see are decidedly pedunculate (some have fairly long stalks). In my experience, the benign villous adenomas are as unequivocally benign as are their counterparts—the smooth adenomas. As in the smooth variety, malignancies in villous adenomas are differentiated unequivocally into noninvasive and invasive types (neither the presence of cell atypism

[atypical changes] nor mitoses are considered indicative of clinical malignancy). Curiously, while for years I have encountered only a single villous adenoma with definite noninvasive malignancy, recently, in the course of only 10 days, I have observed three such instances. Parenthetically, because the solitary patient just alluded to was regarded as a poor surgical risk, he was treated conservatively without recurrence after a lapse of over three years. Except for the greater incidence of unequivocal invasive cancer observed at the time of the initial examination in large and small lesions, I have not seen any other features that would support the proposition that nonindurated or nonulcerating villous adenomas are more apt to undergo malignant degeneration; this is in agreement with Dukes' experience but in conflict with the experience of other authors. The finding of invasive cancer in a small villous lesion is not at all exceptional. In my experience, the size of adenomas is no guarantee against cancer. The relationship of size of either villous or smooth adenomas to cancer is certainly not conclusive; it is believed by some authors, however, that the incidence of noninvasive and invasive cancer increases in the larger lesions. In one instance, a large villous adenoma was observed for more than fifteen years and was benign at necropsy after the death of the patient from totally unrelated causes. Large, but totally benign, villous adenomas (of more than 10 cm. in diameter) are encountered quite frequently.

It is believed by some authors that recurrence following any type of nonradical therapy is an outstanding feature of this lesion. In my experience, the recurrence rate of smooth and villous adenomas is about the same. Furthermore, repeated recurrences have also invariably been benign following removal of benign villous adenomas.

Of interest is the oft unrecognized observation that villous adenomas may produce a loss of large amounts of sodium and chloride that leads to fatal electrolyte imbalance or depletion. To date, I have not encountered such a situation.

Diagnosis

The diagnosis of adenomas situated within the reach of the sigmoidoscope is best made by endoscopy and "total biopsy." The polyp is removed at or with the base *in toto* or in several large segments for microscopy in order to detect promptly any small malignant foci within the adenoma or at its base.

For the detection of polypoid growths situated above the reach of the sigmoidoscope, main dependence is placed on preoperative radiography, on digital or manual transabdominal exploration during the course of operation, and on coloscopy, preferably with insufflation, through small colotomy incisions. Infrequently, it is desirable to examine the lumen of the colon through a long incision—extended colotomy. Of diagnostic importance is the flexible fiberoptic coloscope now in the process of perfection. In the hands of capable roentgenologists or gastroenterologists, special roentgenological techniques have real merit, while the standard barium enemas leave very much to be desired, particularly as far as the detection of small adenomas is concerned. The differentiation of fictitious from true polyps is sometimes most difficult. Surgery should not be used for polyps situated beyond the reach of the sigmoidoscope unless two consecutive roentgen-ray studies of the colon reveal the lesion in the same relative position. As already stated, close cooperation between the roentgenologist and the intestinal surgeon should be maintained and is as essential as the latter's cooperation with the pathologist.

Cancer Potential

The question of metamorphic forces or transition from adenoma to carcinoma has been studied in various ways. Some fourteen years ago, I observed adenomatous tissue in adenocarcinomas in sixteen out of one hundred fifty consecutive colorectal specimens, suggesting that cancer in these sixteen cases, might have arisen in benign adenomas. The incidence of transition of adenoma to cancer was presumed to be even higher because of the known fact that the progression of malignant process may destroy the original architecture of a benign adenoma beyond microscopic recognition. Furthermore, thirty-seven of these 150 surgical specimens revealed concomitant adenomas varying in number from one to five; almost all of these were less than 0.5 cm. in diameter. A more recent, as yet incomplete, study shows a higher incidence largely because the surgical specimens removed consist of longer segments of adjacent colon than did the specimen obtained a decade and half ago. Many patients with metachronous cancer were found to harbor adenomas in the original resected specimens within some 10 cm. of the original cancer.

The inexpert is understandably confused and perplexed, because at one extreme is the published guess, practically impossible to verify scientifically, that "all polyps of the colon are cancers (carcinomas) or will become cancers if they are not destroyed and if the patient lives long enough." At the other extreme, is the belief that rectal adenomas are either malignant initially or tend to become malignant very early and

that they do not become malignant over the course of time. This latter belief was based on a five-year to eleven-year follow-up clinical study of forty-three patients who had refused to have their adenomas removed; this group of patients was compared with 117 individuals whose adenomas had been extirpated. The former group of patients did not develop more cancers during a period of five years than those patients who had their adenomas extirpated. A more recent study showed no conclusive evidence that benign adenomas undergo transition to cancer. However, the same authors have found that cancer of the colon and rectum occurs "with five times greater frequency in polyp patients than in normal individuals (10.4 per cent versus 2.1 per cent)," and "that patients with multiple polyps are twice as likely to develop carcinomas as individuals with a single polyp."

The theory that adenomas transform into invasive metastasizing cancer of the colon has recently been questioned by Spratt, Ackerman and Moyer. These investigators presented evidence to show that the annual incidence of carcinoma of the colon (45 per 100,000) can be accounted for by the frequency with which adenocarcinoma arises in nonpolypoid colonic mucous membrane without involving the theory of the origin of adenocarcinomas of the colon minus adenomatous polyps. The frequency of distribution of adenomatous polyps and cancers of the colon are not the same. Adenomas are more evenly distributed throughout the colon than are adenocarcinomas, and the unit percentile frequencies of cancers are higher than those of adenomas in the cecum, sigmoid colon and rectum, and lower than those of polyps in the other parts of the colon. Among 425 of their adenomatous polyps, forty-three contained cells with the microscopic appearance of cancer with but one of the forty-three having abnormal cells questionably infiltrating the polyp's stalk. Among 325 cancers of the colon no residuum of adenomatous polyp was seen. According to these authors there appears to be little evidence for and much against the theory that adenomatous polyps degenerate into infiltrating, metastasizing carcinomas of the colon. These studies of course require confirmation.

Cole, O'Hara and Holden explained the increased survival rate of patients with carcinoma of the colon with associated polyps by host resistance. A group of fifty-nine patients with adenocarcinoma of the colon or rectum but without adenomatous polyps had a six-year survival rate of 46 per cent; a group of twenty-eight with histologically proved adenomatous polyps had a 75 per cent survival incidence. In patients with lymph node metastases, there was 50 per cent survival in the group with adenomas and 25 per cent in those without polyps, suggesting greater resistance in the presence of polyps. The longer duration of symptoms in the polyp group is similarly interpreted. When adenomas coexist with frank adenocarcinoma there is a demonstrable and statistically significant increase in survival time.

Womack believes that colonic adenomas "are not specific separate benign tumors, but are actually neoplasms whose growth potential has been altered by environmental factors. Too often they or new lesions eventuate into frank clinical cancer. Thus they are not premalignant lesions, but actually are cancers in an early stage of progress."

I have observed the occurrence of cancer in the site of benign adenomas in four patients after a lapse of about three to four years. Interestingly, the sister of the fourth patient has harbored an adenoma for more than fifteen years which has remained benign. These observations, however, are not considered conclusive because they were based on the examination of tiny bits of tissue removed with the biopsy forceps from the summit of the adenomas, a procedure I *now* regard as totally unsatisfactory. It should be stressed again and again that only by total removal can the true pathologic nature of the adenoma be determined accurately. On the other hand, I have under observation four additional patients who have been known to have benign adenomas for over fifteen months, and thirteen others with benign adenomas of from three to eleven years' duration who have thus far declined treatment (including one with a villous large adenoma) in whom there is still no clinical evidence of cancer. In the present state of incomplete knowledge of the variable biological behaviour pattern of adenomas, I agree that while colorectal adenomas in some individuals may have a propensity to undergo malignant transformation, adenomas in other persons may nevertheless remain benign. However, since there are no gross or microscopic criteria that will enable the intestinal surgeon or the pathologist to predict a benign course for a given benign adenoma or to definitely distinguish a colonic polypoid cancer from a cancer in a polyp roentgenologically, each patient with an asymptomatic colonic polyp which requires transabdominal removal is judged on the special individual merits, but the rectal or rectosigmoidal adenomas which can usually be removed via the endoscope are preferably extirpated on recognition even if only a *minority* of such adenomatous polyps should become cancers. The only exceptions to this policy are sys-

temic contraindications and patients whose longevity is not excepted to exceed six to twelve months.

Treatment

For practical therapeutic consideration, I have divided adenomas into those situated within the endoscopic reach and those located above the reach of the sigmoidoscope.

Surgical diathermy has remained an excellent method for the disposition of the great preponderance of smooth and villous adenomas that are situated within the reach of the conventional (25 cm. long) sigmoidoscope. However, the use of surgical diathermy requires practice, experience and dexterity. It is not without risk, but the remote risk should not debar the proper use of this excellent therapeutic method or modality.

The precoagulation preparation consists of an effective flushing saline enema or colonic irrigation. After coagulation the patient is given a full diet combined with dioctyl sodium sulfosuccinate or mineral oil.

Neoplasms Within Reach of the Sigmoidoscope

Mucosal Excrescences or Tiny Adenomas.—Mucosal excrescences and the tiny sessile and pedunculate adenomas are removed *in toto* at the base by means of the cold, angulated biopsy forceps. This procedure is followed by coagulation of the mucosal base with a ball-tipped electrode or an angulated grasping forceps. The removed specimen is submitted for histopathologic examination. As a result of this policy, I have encountered superficial or noninvasive adenocarcinoma in two mucosal elevations 2 to 3 mm. in diameter, and one malignant carcinoid. Both patients with superficial cancer have remained well over five years. Parenthetically, I have also successfully treated thirteen patients having superficial rectal cancer that apparently arose from the intestinal mucosa in the absence of adenomatous tissue. This experience, though extremely limited, is nevertheless provocative and poses this serious question: Is abdominoperineal operation (so commonly practiced now) necessary for the treatment of this superficial type of cancer (Dukes' Type A)?

Pedunculate Adenomas.—Whenever the stalk is visualized, an attempt is made to remove these lesions at or near the base by means of a high frequency snare. Adenomas that are located below the peritoneal reflection (about 15 cm. from the anal verge) are treated in the office or clinic while those located above that level are usually treated in a hospital.

Sessile Adenomas.—With increasing experience, more and more small or medium-sized sessile (smooth and villous) adenomas are removed successfully by means of the electric snare. Whenever technically feasible, the large, smooth and villous, sessile adenomas, particularly those that are located on the posterior or lateral wall of the rectum, are removed by means of the double-loop resector. Most of the tissue thus resected retains sufficient of the original architecture for adequate histopathologic examination.

I avoid, in fact condemn, the use of fractitional or serial coagulation for the eradication of any adenomas that rise to an appreciable extent above the surrounding epithelium because malignancy, especially in the depth of the polyp, may thereby be overlooked for some time even by the experienced proctologic surgeon. The only exceptions are the sessile adenomas that have an intraluminal protrusion of less than 3 to 4 mm.; in these situations, multiple specimens of tissue are procured with a cold biopsy forceps from the center, the periphery, and the surrounding epithelium (including the basal submucosal structures) in order to establish the presence or absence of an infiltrating carcinoma. If benign, these very flat adenomas are destroyed by coagulation with ball-tipped electrodes; in some cases several applications of diathermy may be necessary. For emphasis it is reiterated that fractitional coagulation is unwise for the treatment of any adenomas, particularly the sessile adenomas that can be removed by other means, lest invasive malignancy be overlooked for some time. Fourteen such instances have come to my attention during the past four years.

Surgical excisions of deliverable rectal adenomas via the anal canal or through a posterior proctotomy is advised (1) for the surgeon who is not expert in the use of electrosurgical armamentarium; (2) when hospitals do not have the proper electrosurgical armamentarium or generators, and, most importantly, (3) whenever ulceration or induration of the adenoma is discernible.

To repeat, whenever technically possible, sessile adenomas (smooth or villous) are removed by means of the electrothermic snare or by means of the double-loop resector, and occasionally, by a combination of both instruments. If the specimen shows invasive cancer, adequate excision is instituted promptly. If, on the other hand, the removed specimen is benign, the patient is observed endoscopically at monthly inter-

vals for from three to six months. Thus occurrences are detected early, and are removed for histopathologic examination. Of 41 patients with villous adenomas so treated and observed for five years or longer, four had recurrences all of which were benign and were successfully retreated electrothermically. In one of these patients, the lesions recurred three times during a period of observation of twenty-seven months. To date, my experience does not support the need for the radical resection of all villous adenomas, including the very large ones (5 cm. or larger).

Malignant Neoplasms

Noninvasive.—Adenomas with either long or short pedicles that contain foci of noninvasive cancer (or atypical changes) in the body of head of the polyps that are extirpated at the base by means of the electrothermic snare receive no further treatment provided the remaining pedicle is long and free from malignancy upon serial section. No recurrence for from one to five years has been observed in fifty-five patients so treated. I have also successfully utilized the snare for extirpation in five cases of malignancy in the stalk near the head or body but in which the remaining long pedicle was free of cancer; there was no evidence of recurrence in a period of observation of over three years' duration.

I have encountered too few instances of noninvasive cancer in smooth or villous sessile adenomas to justify a definite opinion or policy. In my experience, almost all of the sessile lesions are either the seat of invasive cancers or totally benign at the time of the initial clinical survey. The few exceptions have been alluded to elsewhere in the text. This phase of the subject is, however, now under re-investigation, but in the interim I am continuing to treat noninvasive malignancies conservatively.

Invasive.—When invasive malignancy exists, the lesions are treated promptly by radical surgical means. I consider local excision a poor operation for invasive cancer regardless of the grade of malignancy. Electrothermia is eschewed for the treatment of invasive cancer regardless of its origin (mucosal or in adenomatous tissue). I believe this in spite of the good results I have obtained with this modality in patients who had an expected longevity of less than a year because of concomitant serious disease. In the absence of uncontested evidence, I am inclined to attribute this success to biologic factors of the tumor and/or the host that are not understood at the present time, or perhaps, to minimal involvement of the muscularis mucosae. At any rate, these considerations are still most enigmatic, and the therapeutic results, though thought-provoking, are certainly exceptional.

Adenomas Situated Above Reach of the Sigmoidoscope

These adenomas should be identified radiologically in two sets of films taken at different times before operative intervention is instituted.

Pedunculate Adenomas.—Whenever the heads or bodies and the stalks of these lesions are firm, impressionable and freely movable at the mucosal base, they are treated by transabdominal polypectomy through a colotomy incision. This operation is particularly indicated when the stalk is fibrous and long, and in juvenile patients or in those with the Peutz-Jeghers syndrome. Ulceration or induration of any part of the polyp or fixation at the base with or without palpable mesenteric lymph nodes calls for a wide segmental colonic resection with the adjacent mesentery. As already stated, frozen section examination of the excised specimens is considered unreliable by many pathologists unless most of the specimen is diffusely invaded by cancer; small isolated malignant foci cannot be detected with certainty by this examination. Reliance is placed primarily on clinical experience and judgment.

Foci of cytologic malignancy in the heads or bodies of five adenomas with long stalks that had been treated by polypectomy have shown no clinical or roentgen ray evidence of recurrence after a lapse of from three and one-half to five years following operation. A similar experience has been encountered in two additional cases in which a part of the stalk was involved by the malignant process only a short distance from the mucosal attachment or the base of the pedicle.

To date, my personal experience with coloscopy is insufficient for definite conclusions. However, whenever the lumen of the colon is entered, as in colotomy or in resection for malignant lesions, the interior is usually observed endoscopically in the caudad and orad directions for distances of the length of the scope (25 cm.). Admittedly coloscopy has disclosed unsuspected adenomas, but it is known to have failed to reveal existing adenomas thus creating a false sense of security in some instances.

The recently described technique of coloscopy with air insufflation of the colon appears to be an improvement over the older procedure. This maneuver flattens out the mucosal folds and renders intraluminal lesions,

such as new growths and diverticula, as distinctly visible as conventional endoscopy via the anal canal. We have confirmed the merits of this procedure.

Transillumination of the wall of the bowel by the conventional methods is helpful at times in locating polypoid or new growths. Most of the time, however, transillumination fails or is misleading. Recently, transillumination of the wall of the colon by means of a light encased in a translucent gadget which is introduced into the ampulla via the anal canal and, at laparotomy, is guided into the lumen orad as far as the cecum has been suggested. I have for some time been utilizing intraluminal exploration by means of a flexible endoscope in a similar manner and for the same purpose. To date I have not been able to eliminate the technical difficulties encountered with this scope nor could the mesenteric aspect of the bowel wall be visualized. It now appears that this instrument and still later models will give way to the extremely flexible sigmoidoscope that utilizes fiber optics; the development of the latter is being pursued vigorously.

A method superior to the conventional colotomy-coloscopy procedure is the extended colotomy incision. This we have confirmed. Exposing the colon by one extended U-shaped incision or several long incisions made in the teniae opposite the mesentery affords direct visualization of the colonic mucosa and thus makes possible the unequivocal finding of additional adenomas that are missed by preoperative radiography, by palpation of the gut, by transillumination and at coloscopy through small incisions, and proves emphatically the absence of true adenomas after a mistaken radiographic diagnosis (fictitious polyps) is made that leads to surgical intervention.

The routine resection of the adenoma-bearing segment of the bowel for the extirpation of all pedunculate adenomas situated above the reach of the sigmoidoscope has its enthusiasts and skeptics. The procedure is advised because in a few cases regional lymph node metastases have been encountered in the absence of invasion of the pedicle. About seven colons are said to be unnecessarily resected to accomplish the proper operation for one cancer. However, this operation appears justified because in the hands of some surgeons, polypectomy through colotomy and segmental resection are comparable in magnitude and subject to practically the same incidence and type of complications. Segmental resection is wise in the presence of ulceration or a hyperplastic and rough mucous membrane in any portion of an adenoma.

Subtotal colectomy with ileoproctotomy has been advocated for the treatment of this lesion so as to eradicate any existing but clinically undetectable adenomas (and cancers) as well as any chance for recurrence of adenomas. Only time will determine the wisdom of this thesis; for the present however the procedure appears to be a bit too radical (see familial polyposis).

Sessile Adenomas.—All sessile adenomas of the colon are treated by radical segmental resection. The extensive operation is performed so as not to miss the golden opportunity of curing a grossly undetected cancer. Again, some surgeons, as already alluded to, advocate subtotal colectomy for the eradication of this lesion. Modern surgical treatment has tended to become increasingly more radical for the eradication of adenomas that are situated above the reach of the 25 to 30 cm. sigmoidoscope.

Multiple Adenomas.—The ideal treatment of multiple (more than three) discrete benign adenomas, each situated in a different segment of the colon, is subtotal colectomy and an anastomosis of the ileum to the upper rectum. In our experience, when several adenomas are definitely spotted on radiography, the number of actual polyps found in the surgical specimen is some five times larger.

Juvenile Adenomas.—In a recent publication, I restated that the morphology of discrete adenomas of the colon and rectum in infants and children may be similar to that of adults except for the greater amount of connective tissue stroma with cyst-like glands in the center and a greater amount of inflammatory cell infiltration with a preponderance of eosinophils in some patients. The adult type of adenoma is occasionally encountered in children, as is the juvenile type in an adult. I have never observed malignancy in juvenile adenomas, thus confirming Helwig's as well as Ackerman's observations. Other authors agree that colonic and rectal adenomas in juvenile patients are benign lesions with a characteristic histologic picture. It has been stated that the finding of an adult-type adenoma in children should arouse the suspicion of the presence of multiple polyposis.

As to the malignant potential in juvenile adenoma, an open mind should be maintained because theoretically malignant transformation is a remote possibility. I am, however, prejudiced against this thought because none has been encountered to date in more than 150 clinic and private cases. Concurrence is difficult that any three (or even all four) of the criteria of Gordon and his associates, namely, (1) stratification of epithelial cells with hyperchromatic nuclei, (2) mitotic

activity, (3) absence of goblet cells and (4) presence of large nuclei, are sufficient for the diagnosis of malignancy in adenomas of children. Students of this subject agree that "the potential of malignant transformation in polyps of the rectum and colon in children is probably no greater than that of normal rectal or colonic mucosa." As in adults, the term adenocarcinoma, Grade I, is misleading and should be dropped from any discussion of adenomas. As in adults, it appears that not all pathologists agree as to the precise diagnostic histological criteria of malignancy; in some doubtful cases some pathologists render a diagnosis of malignancy largely for fear of missing one.

The treatment of juvenile adenomas is practically the same as in adults. Radical procedures are unnecessary as malignancy in solitary adenomas occurs rarely, if ever.

Familial Polyposis

This is a heredofamilial disease that begins in a family as a mutant gene and is transmitted to succeeding generations as an heterozygous dominant mendelian trait. Of the forty-one families studied by Dukes, thirty-three have been fully investigated and were divided into two groups: (1) familial—those in which more than one member was affected (twenty-two families), and (2) solitary—those in which so far only one member was affected (eleven families). Studies to date have revealed that the familial and solitary cases are one and the same disease.

The statistical analysis of twenty-two families in which more than one member was affected proves that in them polyposis is not only a hereditary disease, but (1) that polyposis affects males and females equally and either may transmit the disease; (2) that in most polyposis families only half the children are likely to inherit the abnormality, the remainder being normal; (3) that, as a rule, only those who have inherited polyposis can transmit it to the next generation; (4) that the severity of the disease and liability to cancer of the rectum or colon varies considerably in different families, and (5) that in families in which polyposis develops early in life cancer frequently occurs within ten to fifteen years, whereas in families in which polyposis occurs later the precancerous incubation period is longer, so that the patients may die of natural causes before intestinal cancer has time to develop.

I have encountered two patients (in one, ulcerative colitis was also present) in whom adenomas were absent as far as the 25 cm. sigmoidoscope could visualize with the aid of insufflation which usually permits the cephalad visualization of a few additional centimeters of the bowel. The presence of a carpet of various sized adenomas was established on radiography in one case, and at necropsy in the other patient. (Recently, a case of villous adenomas confined only to the left side of the colon and rectum has been encountered.) Parenthetically, it is important to examine the other members of the family, but this is sometimes impossible as these individuals are unusually secretive and avoid every inducement for examination.

There is a measure of agreement that colectomy with the preservation of the rectal segment and rectal control is possible in many patients, but patients so treated require follow-up surveillance at regular postoperative intervals in order to detect recurrent adenomas at the earliest possible moment. If for any reason the patients' cooperation in this respect cannot be assured, an ileoproctotomy should not be performed. Ileoproctotomy is usually indicated when (1) few or no adenomas are present in the rectum, or (2) when biopsy reveals the juvenile type of adenoma. At this operation the colon with a small section of the terminal ileum is excised leaving 8 to 25 cm. of the rectum in place. Leaving of no more than 15 cm. of the rectum should be the goal. This will assure sigmoidoscopic access to the entire postoperative rectal segment. Also, the risk of subsequent formation of adenomas and/or cancer is less in a short rectal stump. An end-to-end anastomosis is best performed, as an end-to-side union may lead to the formation of blind pouch making endoscopic inspection difficult, if not impossible. The performance of ileoproctotomy does not require the mobilization of the rectum. Thus, injury to the pelvic sympathetic nerves is avoided and sexual function in male patients, which infrequently follows pancolectomy, is not endangered. Of unusual interest is the report that adenomas in the rectal stump may disappear or regress spontaneously following the performance of a colectomy and a low ileorectal anastomosis. Holden and Cole have confirmed this observation and are extending this clinical experiment.

The question of spontaneous regression of colonic polyps and cancer is of unusual interest. Dunphy et al cited cases which demonstrate that diversion of the fecal stream by colostomy is followed on occasion by reduction in the size of distally located carcinomas. Congenital polyps may regress in the rectum after subtotal colectomy and ileorectal anastomosis. Such regressions have been complete as far as gross identification of polyps is concerned. Microscopic study, however, may show islands of hyperplastic mucous membrane. Some of the questions that have been

raised to which definite answers are not yet on hand are: (1) May there not be a factor leading to polyposis and carcinogenesis, which is produced or activated by the mucous membrane of the large intestine, and which is removed or deactivated by diversion of the fecal stream and partial or subtotal colectomy? (2) Does the colonic mucous membrane itself produce a factor which stimulates hyperplasia leading to polyposis or carcinogenesis? (3) Whatever the exact mechanism, does not the evidence suggest that diversion of the fecal stream may have a specific antitumor effect? (4) Should subtotal colectomy be more widely employed in the treatment of multiple polyps (or cancer), on the ground that it may eliminate a substance which stimulates the formation of polyps or cancer?

The Peutz-Jeghers Syndrome

In the Peutz-Jeghers syndrome, polyps have been found in the entire alimentary tract but most often in the jejunum. These have produced two outstanding symptoms, namely, bleeding with varying degrees of iron-deficiency anemia, and bouts of abdominal pain produced by a succession of either acute, subacute or chronic episodes of small intestinal intussusception. The abdominal symptomatology is frequently very fleeting. The presence of pigmentation cinches the diagnosis as roentgenography of the small intestine is frequently inconclusive or outright of no help. Intussusception, especially if recurrent, leads to laparotomy and unnecessary intestinal resection.

The pigmentation appears as melanin spots usually on the lips and the oral mucous membrane, but may also involve the palms and soles and their appendages. This syndrome is inherited as a simple mendelian dominant (gene), although sporadic cases have been reported. It is hereditary and familial. Since its latest rediscovery in 1949 by Jeghers, McKusick and Katz this syndrome has become a definite clinical entity but with many unsolved problems.

Parenthetically, it should be remembered that pigmentation caused by the deposition of increased amounts of melanin may be perhaps physiological in some cases; may be present in the familial form of polyostotic fibrous dysplasia (Albright's disease), or may follow the administration of certain drugs such as quinacrine hydrochloride.

Recently, we have discussed the pertinent points of the Peutz-Jeghers syndrome with special reference to the cancer potential and the confusion of interpretation of pathologic data. Interestingly, in three of our five cases, there was present typical circumoral melanin pigmentation without clinical, endoscopic or roentgen evidence of polyps anywhere in the alimentary tract. In the remaining two, solitary benign pedunculate adenomas were present in the rectosigmoids. These were removed by electrothermic snare. In one of these two patients, there is a vague history of antecedent bouts of abdominal pain during childhood and questionable spontaneous passage of a polyp via the anal canal. It appears that circumoral melanin pigmentation without clinically detectable small bowel polyposis is not rare.

The Peutz polyps are considered developmental anomalies—hamartomas—and not true adenomas.

Because of the extremely rare or the apparent absence of a cancer potential in these polyps, conservative surgical therapy—the removal of the polyps through enterotomy incisions versus intestinal resection—is justified.

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New Instrument

An electrical instrument which can predict whether the upper end of a fractured thigh bone will live or die was exhibited at the AMA 1961 Clinical Meeting in Denver by Charles F. Woodhouse, M.D., of Chicago. The test proved accurate in 94 per cent of 38 cases tested. It measures whether the bone has a blood supply, without which it cannot live. Doctor Woodhouse said such predictions could save months of futile invalidism.

Studies on Repetitive Mass Tuberculin and Histoplasmin Testing in School Children of Washtenaw County, Michigan

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THE STUDIES to be reported here were the result of a service program in the interest of the public health and an epidemiologic investigation which grew out of it. The findings of the testing program in April and May, 1958, have been reported elsewhere, both as to the results of skin testing[2] and the x-raying of positive histoplasmin reactors.[4]

A very high frequency of positive reactors to histoplasmin was found in the children attending school in the village of Milan, Michigan; 1,324 children were tested and found to have a prevalence rate of 1.1 per cent for positive tuberculin tests but a 61.3 per cent prevalence rate for positive histoplasmin tests. The 7,774 children tested in other parts of Washtenaw County had corresponding rates of 1.6 per cent and 8.2 per cent. Thus the Milan District children showed a seven- to eight-fold greater histoplasmin positivity rate than did the children in the other school districts tested in the county.[2]

Chest radiographs were taken of 770 of the positive histoplasmin reactors in the Milan Schools. Of this group, 75 per cent had entirely negative films. The remaining 25 per cent (with the exception of a few individuals) had lesions compatible with pulmonary histoplasmosis.[4] No individual had evidence of extensive or alarming pulmonary involvement, and, with one exception, no child was manifestly ill with a disease clinically recognizable as histoplasmosis.

Davey and his associates have reported on the distribution by residence in Michigan of known cases of clinically recognizable acute pulmonary histoplasmosis and the point sources of infection known to be associated with them.[1] Milan village does not appear in this distribution.



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Studies of tuberculin and histoplasmin reactions in school children of the county have continued. The source of the high rates of histoplasmin reaction in Milan has been identified as an area adjacent to the public Junior High School in the center of the village.

The purpose of the present paper is to report the observations made on those school children of the county who have been tested twice with tuberculin and histoplasmin in the course of the case-finding program. Where two or more observations have been made on the same group of subjects, incidence as well as prevalence of positive skin tests can be measured. A single observation per subject permits only the statement of prevalence.

Materials and Methods

Testing was done by the intracutaneous injection of 0.1 cc. of the antigen solution into the flexor surface of the forearm of the subject. Tuberculin was given in one arm, histoplasmin in the other arm. Every precaution was taken to prevent interchange of syringes and needles between the two antigens and to avoid confusion as to which arm represented which antigen.

The tests were applied by a team from the Southeastern Michigan Tuberculosis Detection Project. The team members are carefully trained in both the techniques of applying the tests and of reading them. Their work is standardized to a very high degree.

The reading of the tests was also done by the same teams, with the exception of the second testing

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of 5th graders in the Milan school. In this group, the reading was done by one of the authors (H. J. D.) but only after careful standardization of his reading technique with that of the testing team.

The antigens were supplied by the Michigan Department of Health. The skin test dose of tuberculin contained 5 T. U. of Old Tuberculin. The dose of histoplasmin contained the equivalent of 0.001 cc. U. S. Reference Histoplasmin.

A skin test was called positive when the maximum diameter of induration measured 6 or more millimeters at 48 to 72 hours after application of the antigen. If positive, the size in millimeters was recorded.

The data for the present study were taken from the files of record cards accumulated by the Washtenaw County Health Department. Study was limited to those children who had been tested twice with either or both tuberculin and histoplasmin, some 245 children in the Milan School District and 1099 children in other schools of Washtenaw County. In the latter group, there were three children who had only one tuberculin test and two who had only one histoplasmin test. The data were transferred to IBM punch cards for tabulation purposes.

Definition of Terms

The terms which will be used to describe the findings need explicit definition, since they may have a different meaning when used by other workers and in different contexts from the present.

In summing up the results of the same test given at two different times to the same individual, it is evident that there are four possible outcomes for each subject. These are, as described in the present report:

CLASSIFICATION OF TEST SUBJECTS

Result of Tests in the Subject		Description of Result as to the Subject
Initial	Subsequent	
Negative	Negative	Persistent negative
Negative	Positive	Converter
Positive	Negative	Reverter
Positive	Positive	Persistent positive

From this classification of test subjects, one can then calculate relative proportions or rates in terms of "prevalence" and "incidence." These two terms require definition.

Prevalence signifies the accumulated number of events which can be counted at some specified instant in time, without regard to the date of onset or recognition of the event. The passage of time is not a significant variable in the statement of prevalence as used here, sometimes called "point" prevalence. In the present study, prevalence can be stated at either of two instants in time, at first testing or at second testing; the latter is chosen for expression here, since it will give maximum values.

Incidence, on the other hand, signifies the number of new events or newly recognized events which occur during a stated interval in time. Here the passage of time is a significant variable. In the present study, incidence is measured during the interval between the first and second tests.

In order to have a basis of comparison between two or more groups, incidence or prevalence must be expressed as a relative proportion or rate. In standard epidemiologic practice, these rates are derived by application of the simple formula:

$$\frac{\text{Number of persons experiencing event}}{\text{Number of persons at risk of experiencing event}}$$

The resulting proportion is multiplied by some convenient power of 10 such as 100 or 1,000.

If incidence is the measure of interest, the proportion must further be standardized for time in order that a valid basis for comparison be achieved. If prevalence is the measure of interest, the passage of time need not, by definition, be taken into account.

The next problem is to determine the number of persons at risk of the event. Here we must make distinctions. The denominator will be different for prevalence, for incidence of conversion and for incidence of reversion. With regard to prevalence rates of positive skin tests, the number at risk is quite evidently the total tested in the group whose characteristics are specified; by definition the outcome of a single test in one subject is either positive or negative and the rate of positives is properly determined by relating the number positive to the number tested. As for the incidence rate of conversion, the number of converters can properly be related only to those at risk of conversion. These are the subjects who were negative on the initial test. As tabulated below this number can be gotten by adding the persistent negatives and the converters. Those who were positive on the initial test are not at risk of conversion and cannot properly enter into computation of the conversion rate. Similarly, the reversion rate can be computed only by relating the number of reverters to the number at risk of reversion, which number is found by summing the persistent positives and the

reverters, all those who were positive at the initial test.

The final problem relates to the passage of time in the measurement of incidence. In the present study,

TABLE I. MILAN COMPARED TO WASHTENAW COUNTY (OUTSIDE MILAN) SCHOOL CHILDREN SKIN TESTED TWICE (GENERAL PREVALENCE AND INCIDENCE RATES) 1958-1960

I Tuberculin Testing*	Milan	Other Washtenaw
Results of testing		
Total tested	245	1096
Persistent negatives	240	1078
Converters	1	11
Reverters	0	0
Persistent positives	4	7
Prevalence of positive tests at second testing		
Number at risk	245	1096
Number positive	5	18
Prevalence per 100 at risk	2.0	1.6
Incidence of conversion		
Number of persons at risk	241	1089
Number converting	1	11
Number of person-years at risk**	453	1773
Conversions per 100 person-years	0.2	0.6

*A positive test is one having 6 or more mm. maximum diameter of induration at 48 to 72 hours following the intracutaneous injection of 0.1 ml. of Old Tuberculin containing 5 T. U. of antigen.

**Some of the children were tested at a one year interval but the majority were tested at a two year interval.

some of the children were tested at an interval of one year (or a close approximation) while the majority were tested at a two year interval. Adjustment must be made for the fact of two different lengths of time of observation. This is most simply done by multiplying the number in the first group by one year and the number in the second group by two years and summing the two products as the number of person-years at risk. This figure can then be used as the denominator of an incidence rate and will at one and the same time take into account the number of persons at risk and the length of time each was at risk.

The foregoing definitions and computational methods have been given at some length. We feel justified in doing so since a valid interpretation of the findings, to be given below, is dependent on an understanding of the terms and methods used. Epidemiologists and clinicians frequently use the same words but may give them quite different meanings.

In the tabulations and discussion to follow, the results of the tuberculin test will be considered independently of the results of histoplasmin testing. There were so few children who were double positives at a particular testing that little information of value is lost by considering the reactions to each of the two antigens independently.

Results

For convenience in presentation, the population of tested school children must be partitioned in several ways. Since the primary purpose of the paper is to compare the results in the Milan School District with that of other school districts in Washtenaw County, the primary division of the study population is that of "Milan" and "Other Washtenaw." Each of these prime groups is subdivided first as to the tests—tuberculin or histoplasmin. The next subdivision is that of approximate age groupings as reflected by the grade in school at the second testing period, in 1960. The grouping is that of 9th, 10th, 11th and 12th graders into one class and those in the 3rd through 8th grades into the second class. Finally, each of the resulting subgroups is specifically subdivided by sex, by race, by grade in school, and by locality of the place of residence, each of these four characteristics taken one at a time.

The results of tuberculin testing are shown in the first three tables. Table I presents the general prevalence and the incidence of conversion. There were no recorded reverters to tuberculin. Two things are evident: school children in Milan do not differ in any significant way from school children in the other school districts of Washtenaw County as to the results of tuberculin testing; the prevalence and the rate of infection are low.

Tables II and III provide estimates by sex, race, grade in school (a rough measure of age) and locality of residence. It appears that in Milan, tuberculin positivity is more frequently seen in white males whereas in the other school districts it occurs more often in non-white females. As to place of residence, Ann Arbor appears to have the leading role as to tuberculin positivity. Much caution must be used in interpreting these differences between rates, however, because they are based on rare events. For example, in Table II, all the conversion rates for Milan were based on a single individual subject. None of the differences can be considered as statistically significant.

With regard to the results of histoplasmin testing, the differences between school children in Milan and in other Washtenaw County school districts are striking and for the most part significant.

Table IV sets forth the general prevalence and incidence rates. It is evident that these rates are six to seven times as great in Milan children as in the remainder of the county, except for reversion rates, where the pattern is reversed. The difference between the two reversion rates is not significant.

Tables V and VI present the specific rates in the two school age groups.

Inspection of Table V shows that boys have somewhat higher rates than girls. In Milan, the white children have somewhat higher prevalence rates than do the non-white, although conversion rates are much the same. It can be shown from other data that the non-white children are predominantly rural dwellers and come into the village schools with a lower prevalence rate. Once in school in the village, however, they become infected at the same rate as do the white children.

In other areas of Washtenaw County, the rates for non-white children exceed those of white children, especially as to prevalence. The reason for this difference is not known, but one might speculate that the in-migration of negroes from the mid-South may be a partial explanation. People moving into Wash-

TABLE II. MILAN COMPARED TO WASHTENAW COUNTY (OUTSIDE MILAN) (9TH THROUGH 12TH GRADES) SCHOOL CHILDREN SKIN TESTED TWICE 1958-1960

I Tuberculin Testing: Sex, Race, School Grade, Residence Specific Rates

Characteristic	Total Children Tested		Prevalence (Per Cent) of Positive Tests at Second Test		Incidence of Conversion Per 100 Person-Years	
	Milan	Other Washtenaw	Milan	Other Washtenaw	Milan	Other Washtenaw
All characteristics	182	882	2.2	1.7	0.3	0.5
Sex						
Male	69	409	4.3	1.2	0.0	0.3
Female	113	473	0.9	2.1	0.9	0.8
Race						
White	167	825	2.4	1.4	0.6	0.4
Non-white	15	57	0.0	5.3	0.0	1.8
School grade, 1959-1960						
9th	50	265	2.0	2.6	0.0	1.5
10th	50	275	4.0	1.4	2.0	0.2
11th	42	210	0.0	0.5	0.0	0.0
12th	40	132	2.5	2.3	0.0	0.0
Place of residence						
Milan	182	—	2.2	—	0.3	—
Ann Arbor	—	212	—	3.8	—	2.0
Dexter	—	62	—	0.0	—	0.0
Manchester	—	87	—	0.0	—	0.0
Saline	—	92	—	1.1	—	0.0
Ypsilanti	—	319	—	0.9	—	0.0
All other	—	110	—	2.7	—	0.0

TABLE III. MILAN COMPARED TO WASHTENAW COUNTY (OUTSIDE MILAN) SCHOOL CHILDREN (3RD THROUGH 8TH GRADES) SKIN TESTED TWICE 1958-1960

I Tuberculin Testing: Sex, Race, School Grade, Residence Specific Rates

Characteristic	Total Children Tested		Prevalence (Per Cent) of Positive Tests at Second Test		Incidence of Conversion Per 100 Person-Years	
	Milan	Other Washtenaw	Milan	Other Washtenaw	Milan	Other Washtenaw
All characteristics	33	214	1.6	1.4	0.0	1.0
Sex						
Male	13	106	2.9	0.9	0.0	0.6
Female	20	108	0.0	1.8	0.0	1.3
Race						
White	30	180	1.7	0.6	0.0	0.4
Non-white	3	34	0.0	5.9	0.0	4.5
School grade, 1959-1960						
3rd	—	1	—	0.0	—	0.0
4th	—	19	—	0.0	—	0.0
5th*	33	15	1.6	0.0	0.0	0.0
6th	—	7	—	0.0	—	0.0
7th	—	75	—	2.7	—	2.5
8th	—	97	—	0.0	—	0.0
Place of residence						
Milan	33	—	1.6	—	0.0	—
Ann Arbor	—	121	—	2.5	—	1.5
Dexter	—	0	—	—	—	—
Manchester	—	2	—	0.0	—	0.0
Saline	—	45	—	0.0	—	0.0
Ypsilanti	—	14	—	0.0	—	0.0
All other	—	32	—	0.0	—	0.0

*Only 5th graders retested in Milan

tenaw County from the histoplasmosis endemic area of the central Mississippi Valley may have higher positivity rates at the time of arrival than people who have lived most of their lives in Washtenaw County,

TABLE IV. MILAN COMPARED TO WASHTENAW COUNTY (OUTSIDE MILAN) SCHOOL CHILDREN SKIN TESTED TWICE (GENERAL PREVALENCE AND INCIDENCE RATES) 1958-1960

II Histoplasmin Testing*	Milan	Other Washtenaw
Results of testing		
Total tested	244	1097
Persistent negatives	40	923
Converters	41	61
Reverters	0	3
Persistent positives	163	110
Prevalence of positive test at second testing		
Number at risk	244	1097
Number positive	204	171
Prevalence per 100 at risk	83.6	15.6
Incidence of conversion		
Number of persons at risk	81	984
Number converting	41	61
Number of person-years at risk**	134	1609
Conversions per 100 person-years	30.6	3.8
Incidence of reversion		
Number of persons at risk	163	113
Number reverting	0	3
Number of person-years at risk**	324	177
Reversions per 100 person-years	0.0	1.7

*A positive test is one having 6 or more mm. maximum diameter of induration at 48 to 72 hours following the intracutaneous injection of 0.1 c.c. histoplasmin, equivalent to 0.001 c.c. of U.S. Reference Histoplasmin.

**Some of the children were tested at a one year interval but the majority were tested at a two year interval.

but outside of Milan. In any case, the numbers of non-white children are small. It is, therefore, difficult to be confident of the meaning of differences in rates.

The most interesting differences among the children in the upper grades are seen in the declining trend of rates in Milan children as the grade in school increases, especially as to conversion rates, whereas in other areas of the county there is a suggestion of an increasing trend, although an irregular one. In general, it is observed that the prevalence rates of positive histoplasmin tests increase with age, which is correlated with grade. The reverse phenomenon, in Milan, is being investigated further.

In relation to place of residence, the communities of the county other than Milan appear to be much the same. With the numbers of children involved, it is doubtful that the differences between the communities other than Milan, have any significance.

The experience with histoplasma infections of the children in the lower grades is shown in Table VI. Here the puzzling fact is the reversal of rates as related to sex, with the higher rates being found in females. The remainder of the table does not show particular differences of note, in view of the major limitations of the data, the relatively small numbers of children and the fact that only the 5th graders in the Milan school were included in the retesting with both tuberculin and histoplasmin.

Discussion

It is evident that (within the restrictions of time, place, and persons of the study here reported) tuberculous infection is such a rare event that no epidemiologic pattern emerges. The cost of repetitive mass tuberculin testing in children and adolescents in an area such as Washtenaw County must be justified on the basis of new or previously unrecognized cases of infectious tuberculosis or individuals warranting chemo-prophylaxis who are found by study of those who are tuberculin positive and their contacts.

But while repetitive mass tuberculin surveys in areas with low tuberculin positivity rates cannot be justified on epidemiologic grounds alone, they can be amply justified if other skin testing procedures are done simultaneously. It was estimated that the addition of histoplasmin testing increased the total cost by about 20 per cent[2] in the initial program of 1958.

In Washtenaw County, the small additional expenditure has opened up an entirely new field of concern to physicians and public health workers of the area by disclosing the extent and behavior of infections due to the fungus, Histoplasma capsulatum, in the human population. Investigations stemming out of mass repetitive histoplasmin testing give promise of leading to the development of effective control measures for communities such as Milan.

The time has come to consider seriously a deliberate policy of using one or more skin test antigens simultaneously with tuberculin. At the present time, blastomycin is suggested for serious consideration. Coccidiodin should be considered. As interest grows in systemic or "deep" mycotic infections in humans, more skin test agents will undoubtedly be developed. A skin test for infections due to Cryptococcus neoformans would be welcome.

With the passage of time the infections in humans due to fungi may become relatively more important than tuberculosis. It would seem reasonable to believe that in Washtenaw County, and particularly in Milan, this is already true as regards histoplasmosis. This is not to imply that tuberculosis should be written off as being unimportant. It will continue to be of major importance for a long time to come, if for no other reason than the large reservoir of humans with quiescent tuberculous lesions which have

the potentialities for reactivation and becoming sources of transmission of the agent to other human beings. Nonetheless, it is rapidly becoming evident that pulmonary tuberculosis is more and more to be considered as one of a complex group of infectious processes involving the respiratory tract. Prominent in this group are the presently "anonymous" mycobacteria and the fungi. It seems reasonable to suggest that we employ our facilities in study of the group rather than a single member. A start has been made with regard to infections due to Histoplasma capsulatum.

Meanwhile, it is well to attempt to characterize this new problem in terms of what we have learned of it in this particular county of Michigan.

Although the distinction may appear to some to be an academic one, it seems preferrable to us to designate the situation in Milan as "hyperendemic

TABLE V. MILAN COMPARED TO WASHTENAW COUNTY (OUTSIDE MILAN) (9TH THROUGH 12TH GRADES) SCHOOL CHILDREN SKIN TESTED TWICE 1958-1960

II Histoplasmin Testing: Sex, Race, School Grade, Residence Specific Rates

Characteristic	Total Children Tested		Prevalence (Per Cent) of Positive Tests		Incidence of Conversion Per 100 Person-Years	
	Milan	Other Washtenaw	Milan	Other Washtenaw	Milan	Other Washtenaw
All characteristics	182	882	93.4	16.3	34.2	4.0
Sex						
Male	69	409	98.6	18.6	45.0	4.7
Female	113	473	90.2	14.4	30.4	3.5
Race						
White	167	825	94.0	15.0	34.4	3.9
Non-white	15	57	86.7	35.1	33.3	6.0
School grade, 1959-1960						
9th	50	265	100.0	11.3	50.0	3.9
10th	50	275	92.0	16.5	36.7	3.5
11th	42	210	92.8	22.7	20.0	6.3
12th	40	132	87.5	15.8	8.3	1.6
Place of residence						
Milan	182	—	93.4	—	34.2	—
Ann Arbor	—	212	—	13.7	—	4.2
Dexter	—	62	—	8.1	—	3.3
Manchester	—	87	—	13.8	—	1.3
Saline	—	92	—	17.2	—	4.8
Ypsilanti	—	319	—	18.2	—	4.4
All other	—	110	—	21.8	—	3.8

TABLE VI. MILAN COMPARED TO WASHTENAW COUNTY (OUTSIDE MILAN) SCHOOL CHILDREN (3RD THROUGH 8TH GRADES) SKIN TESTED TWICE 1958-1960

II Histoplasmin Testing: Sex, Race, School Grade, Residence Specific Rates

Characteristic	Total Children Tested		Prevalence (Per Cent) of Positive Tests at Second Test		Incidence of Conversion Per 100 Person-Years	
	Milan	Other Washtenaw	Milan	Other Washtenaw	Milan	Other Washtenaw
All characteristics	33	214	55.6	12.6	25.9	2.5
Sex						
Male	13	106	44.1	11.2	21.9	2.2
Female	20	108	69.0	14.7	33.0	5.1
Race						
White	30	180	55.2	12.2	25.0	2.1
Non-white	3	34	60.0	14.7	33.0	5.1
School grade, 1959-1960						
3rd	—	1	—	0.0	—	0.0
4th	—	19	—	10.5	—	0.0
5th*	33	15	55.6	13.3	25.9	0.0
6th	—	7	—	14.3	—	0.0
7th	—	75	—	10.7	—	3.6
8th	—	97	—	14.3	—	2.3
Place of residence						
Milan	33	—	55.6	—	25.9	—
Ann Arbor	—	121	—	9.9	—	3.1
Dexter	—	0	—	—	—	—
Manchester	—	2	—	0.0	—	0.0
Saline	—	45	—	21.7	—	2.7
Ypsilanti	—	14	—	28.6	—	0.0
All other	—	32	—	3.1	—	0.0

*Only 5th graders retested in Milan

sensitivity to histoplasmin" rather than "histoplasmosis" since the latter may imply to the reader that we are dealing with cases characterized by illness of such intensity and type as to be clinically recognizable. The distinction further serves to point up the fact that, in general, when human beings are infected as a result of contact with the spores of the Histoplasma capsulatum, by far the most common outcome is "inapparent infection" and that only a minority of infected persons will immediately develop signs and symptoms which are the hallmarks of "disease." The relative proportions of inapparent infection and disease in any group of newly infected persons will depend on a great many variables associated with the parasite, the host and the environment. One has the impression, however, that with infection due to H. capsulatum, the most critical factors are the concentration of spores in the air and the length of time such air is breathed by the human who is at risk of becoming an accidental host. What we think of as the typical "epidemic of histoplasmosis" usually results when a family, a group of workmen, a group of school children or a military unit frequents for a short time a site where there is a high concentration of spores. Under these circumstances, most of the persons become infected and a large proportion of the infected, sometimes a majority, develop an acute illness. In turn, a large proportion of the illnesses occurring in such a setting are sufficiently severe so as to permit their being recognized as the disease we call "histoplasmosis."

In Washtenaw County, however, we appear to be dealing with a situation in which exposure is of low order, in terms of the concentration of spores in the air. The difference between Milan and the other areas of Washtenaw County may well relate to the frequency of exposure to such low concentrations. In this setting, many become infected but few, perhaps none, manifest their infection immediately as a recognizable disease state. It is for this reason that we prefer to use the phrase "sensitivity to histoplasmin" rather than "histoplasmosis." The high frequency of positive histoplasmin skin tests in Milan justifies the description of "hyperendemic." The available data suggest that it is in no way "epidemic" in the sense of being new or recent or temporary. Age specific positivity rates would suggest the rate of infection has been reasonably constant for at least ten to twelve years. The histoplasmin positivity rates in the school children of Washtenaw County outside of the Milan area can properly be called "endemic" for the county. They are of the same order of magnitude as suggested for Michigan by Furcolow in his description of geographic variation of histoplasmin sensitivity in the United States.[3]

The fact that there is little recognizable disease in the group under study should not lead us to the conclusion that infections due to the histoplasma organism are unimportant. As yet we have little, if any, good data as to the long term outcome of such infections. It is conceivable that inapparent infections in childhood may remain quiescent for long periods of time only to become active, progressive and destructive disease in the adult years. Clinical experience suggests that such is a distinct possibility. Cases are known in which apparently inactive lesions of histoplasmosis have become reactivated in association with corticosteroid therapy. The possibility of a natural history of histoplasma infection analogous to that of tuberculous infection is well worth keeping in mind.

Although definitive studies have not yet been done, there is evidence to suggest that in Milan the burden of chronic, progressive histoplasmosis in the adult population is equal to or greater than the burden of tuberculosis. We hope to obtain a better estimate of this problem in Milan adults in the near future. Meanwhile, comparative data as to adults in the neighboring town of Tecumseh are being collected.

Summary

The results of repetitive mass tuberculin and histoplasmin testing of 1,341 school children in Washtenaw County, Michigan, during the period May 1958 to May 1960, are reported.

In this group, tuberculous infection, as measured by the skin test, is a rare event. The prevalence of positive tuberculin reactions is about 1.7 per cent. The rate at which new infections are acquired is about 0.5 per 100 person-years at risk.

Infection due to Histoplasma capsulatum is not a rare event. The prevalence of positive histoplasmin tests in the entire group is 28 per cent while conversion to histoplasmin positivity proceeds at a rate of about 9.6 per 100 person-years at risk. According to these measures, histoplasmin reactions occur from sixteen to nineteen times more frequently than do tuberculin reactions.

It is shown that the burden of histoplasmin positivity is to be found in children attending school in Milan village. Milan is clearly different from the other areas of the county which have been studied. The prevalence of positive histoplasmin reaction in Milan school children is 83.6 per cent as compared

with 15.6 per cent for the remainder of the county. The conversion rate in Milan is correspondingly high, 30.6 compared with 3.8 per 100 person-years in other school child groups in the county.

Without any intention of underestimating the importance of tuberculosis, a plea is made for recognizing that it is a member of a complex group of infections and diseases whose prime attack is on the respiratory tract. Rather than focus attention wholly on tuberculosis in mass skin testing, we should focus on the group and systematically look for evidence of infection by other members. This can be done at a small extra cost by testing simultaneously with tuberculin and other antigens, especially those available for such fungus infections as histoplasmosis, blastomycosis, coccidioidomycosis and for mycobacterial agents other than M. tuberculosis.

The addition of histoplasmin testing to mass tuberculin testing in Washtenaw County has turned up a striking problem which was previously unrecognized.

Inapparent infections due to H. capsulatum in children should not be dismissed as unimportant. The possibility of reactivation of an originally "benign" infection at some later time, with the production of chronic progressive disease, should be kept in mind.

Acknowledgment

We wish to express grateful appreciation to all the agencies, state and local, official and voluntary, that have supported these studies through sponsorship of the Southeastern Michigan Tuberculosis Detection Project. Many individuals have wholeheartedly cooperated; of especial note are the physicians, the staffs of schools, the parents and school children of the Milan School District.

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Dieting Requires Attitude Change Toward Eating

"Really successful dieting requires a life-long change in attitudes toward food and eating," says Park W. Willis III, M.D., of the Department of Internal Medicine, University of Michigan Medical Center.

"The patient must learn," Doctor Willis declares, "that the only successful long-term approach to losing weight and to staying slender is to regulate very carefully the amount and type of food eaten."

To develop a proper attitude toward dieting, Doctor Willis lists several points. The overweight person must realize that he is overweight, that this condition is abnormal for him, and that being fat carries with it a health hazard that is reduced as weight is lost. Such "emotional preparation" is essential.

Diets in common use include low-salt diets, low-protein diets, high-protein diets; low-fat diets and low-carbohydrate diets, to name a few. Each has its special use and should be undertaken only on the advice of a physician.

"The main requirement of a weight reduction diet," Doctor Willis noted, "is that it contains less calories than the individuals' usual diet." The quantity of food must be reduced. High-caloric foods should be replaced with low-caloric ones. To satisfy the appetite, foods high in bulk and low in calories can and should be used.

Diet manuals, diet lists, and calorie-counting sheets are available from a number of sources. Doctor Willis stresses that the important thing to remember, is that a decrease in the total caloric content is necessary.

The use of drugs to help in weight loss depends on the effect of these agents on the appetite, he adds.

These drugs work quite well for some patients, he declares, although some of these agents have stimulating effects and may not be completely safe for use by people with heart disease or high blood pressure. When useful, these agents should only be prescribed by an individual's personal physician.

He stresses that drugs are not really a very good idea in view of the need for "a life-long change in attitudes toward food and eating. Using substances such as these appetite-decreasing drugs simply delays the development of these new habits and attitudes."

Cesarean Section

A *Changing Concept*

Arthur G. Seski, M.D.
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DURING the last decade, it has become increasingly obvious that Cesarean section is used more and more to eliminate difficult vaginal delivery. The difficult midforceps delivery and internal version and extraction are now obstetric oddities. The obstetrician, anxious to insure good results for both mother and infant, is no longer content to watch and wait, hoping that natural forces will solve his many problems. He has been impressed with the relative simplicity and speed of Cesarean section and the satisfactory outcome obtained.

The young obstetrician has had little experience in the delicate art of difficult vaginal delivery. Mindful of the increased incidence of complications in such circumstances, he turns naturally to that which is easiest for him—Cesarean section. Is this confidence entirely justified?

We have recently completed a study of 500 consecutive Cesarean sections performed at Woman's Hospital from August, 1956 to July, 1958. Of these, 496 were low cervical and four were classical. During this time, Cesarean section comprised 7.3 per cent of all deliveries. While our findings do not differ greatly from other recent reports in the literature, nevertheless we believe that they serve as a guide to the proficiency of the operation as performed by many obstetricians under ideal conditions.

Consultation

As is the custom in every accredited institution, consultation is obtained in every instance. When an obstetrical emergency arises, however, the obstetrician is free to carry out the operation as rapidly as possible —which is necessary if more infants are to be salvaged. We believe that a qualified obstetrician is certainly capable of this judgment, and we place no time-consuming hindrances in his path.



Author

ARTHUR G. SESKI, M.D.

Anesthesia

In the 500 cases studied, no sedatives were given prior to the operation. Generally, the patient receives Scopolamine gr. 1/150 by hypodermic one hour before surgery. All 500 patients received a spinal anesthetic consisting of approximately 7 mg. pontocaine and received nothing more until the cord was clamped. In all instances, the anesthetic proved satisfactory.

Maternal Mortality

There were no maternal deaths in our series. Similar reports from institutions where trained obstetricians practice bear out this trend. Maternal mortality directly attributable to the operative procedure is practically zero. In our institution, a medical anesthesiologist is present in every instance, and certainly some of the credit for this low mortality rate should go to him, since some patients are poor risks because of shock, infection, exhaustion, and other causes. The complications which did occur, exclusive of minor wound infections, were two instances of postpartum hemorrhage and two instances of wound dehiscence. On one occasion, it was necessary to perform a hysterectomy because of postpartum hemorrhage.

Perinatal Mortality

The uncorrected perinatal mortality in this series was 5.2 per cent. The great majority of these infant deaths were associated with one of the complications of pregnancy such as placenta previa, placenta abruptio and toxemia and hence cannot be attributed to the surgical procedure *per se*. In order to obtain the corrected perinatal mortality, all such complications which inherently decrease the fetal survival must be eliminated. To obtain the true corrected perinatal mortality percentage, 253 elective repeat Cesarean sec-

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tions and 156 Cesarean sections performed for cephalo-pelvic disproportion were studied. Together, these total 409 cases, or 81.8 per cent of this series.

Four infant deaths occurred in this group; one from Hyaline membrane disease, one from cerebral hemorrhage, one from atelectasis, and one unknown. These four deaths, therefore, constitute a corrected infant mortality of 0.9 per cent. This is the same percentage as obtained by Hesseltine[1] and is somewhat better than the 1.7 per cent obtained by Harris.[2] It is interesting to note that not one infant death occurred in that group delivered because of cephalo-pelvic disproportion.

Prematurity

Selecting the time to perform an elective Cesarean section is indeed a problem. If judgment fails and a premature infant is delivered, a serious error has been committed. Naturally, perinatal mortality rates go up as prematurity increases no matter what the mode of delivery. It is generally believed that insuring a term infant is the most fertile field for improvement when dealing with elective Cesarean sections. There are recent reports which state the incidence of prematurity anywhere from 4 to 11 per cent.[3] In our series of 253 repeat Cesarean sections, seven premature infants were delivered. The fetal size, therefore, was not properly estimated in 2.7 per cent. The smallest infant electively delivered weighed 4 pounds 6 ounces. We think that the percentage of premature infants delivered by Cesarean section could be decreased if consultation were obtained in questionable cases to estimate the fetal size. It may even be more important than requiring consultation before performing an initial Cesarean section with respect to the actual number of lives saved.

Breech Presentation

An interesting statistical comparison can be made between the perinatal loss with Cesarean section and that obtained by vaginal delivery of a term infant with breech presentation. Hall and Kahl obtained a corrected fetal mortality of 2.6 per cent in 1,456 breech presentations delivered vaginally.[4] This corresponds to 0.5 per cent for non-breech vaginal deliveries and 0.9 per cent corrected perinatal loss for infants delivered by Cesarean section. If the breech presentation is the only complication, it could then be stated that delivery of a term infant presenting as a breech by Cesarean section is approximately three times safer for the infant.

In our series, 9 per cent of all Cesarean sections were performed on infants presenting as a breech which constitutes forty-five cases. There were no infant complications in this group. Sabin and Foote recently obtained a corrected fetal mortality of 5 per cent in primiparas who deliver a breech vaginally.[5] The risk in this circumstance is therefore five times greater than with Cesarean section. It follows, then, that the overall infant mortality could be substantially reduced if Cesarean section were performed more liberally with breech presentation. This is certainly true if there is any question about the adequacy of the pelvis or if labor does not progress normally. This could be stated of any mal-presentation.

Comment

The confidence placed in Cesarean section as a mode of delivery is definitely justified. With a well-trained operating team, medical anesthesiologist, and competent pediatrician, there is apparently no reason to subject the mother and infant to a long trial of labor in a situation where the risk to either is increased. To take full advantage of the favorable statistics reported here, a certain amount of anticipation must be exercised. The Cesarean section must be performed before unfavorable situations arise.

Summary

1. Five hundred consecutive Cesarean sections as performed under ideal conditions were reviewed.

2. Cesarean section, as done at Woman's Hospital, is an extremely safe procedure for the mother.

3. The uncorrected perinatal mortality rate is 5.2 per cent. The majority of these infants were subjected to an unfavorable complication of pregnancy. The corrected perinatal mortality is 0.9 per cent, which is 0.4 per cent greater than the corrected perinatal mortality for vaginal delivery.

4. A premature infant resulted in 2.4 per cent of Cesarean sections performed electively. It is implied that this error could be lessened if consultation were obtained prior to each elective section in which there is some question of fetal size. From the standpoint of actual numbers of lives saved, this may be more important than consultation before an initial Cesarean section.

5. The overall infant mortality could be improved by performing Cesarean sections more liberally when the patient is at term and there is a breech presentation.

6. In order to take full advantage of the favorable statistics reported here, it is necessary to anticipate complications and perform Cesarean sections before these arise.

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Large Scrotal Hernia with Unusual Contents

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SINCE 1802, thirty-five cases of occurrence of portions of the stomach in inguinal, femoral and scrotal hernias has been reported. Only six of these cases have been in the English language literature. An excellent review of the subject can be found by Davey and Strange,[1] who reported that various portions of stomach or duodenum may be found in these hernias: pylorus alone, greater curvature, pylorus and duodenum and whole stomach. Reider made the first x-ray diagnosis and was able to watch the progression of the stomach into the scrotum over several examinations. M. H. Poppel,[3] in 1954, describes herniation as one of the organic etiologies of megalogastrica.

Several etiologies and mechanisms for the occurrence of stomach and scrotal hernias have been reported.[1,4] We would like to report the most striking scrotal hernia yet described and suggest a new mechanism for its development.

Case Report

A white, male, indigent patient, aged sixty, was admitted to Wayne County General Hospital on June 24, 1952, with a giant right scrotal hernia extending down to his ankles. The hernia had been present for more than twenty years, with a gradual increase in size. His only symptom was shortness of breath on exertion. He had difficulty in walking (Fig. 1).

The patient was a pale, elderly man with a large scrotal hernia. Laboratory work indicated that the patient had a marked anemia with occult blood in the stool. At first, it was thought that the hernia was too large to correct surgically. Attempts were made to reduce the hernia by elevating the bed, thus relieving the tremendous weight of the intrascrotal organs and increasing the size of the intra-abdominal cavity.

During all of this time, the patient never had any symptoms attributable directly to his hernia. A study of the upper gastrointestinal tract was done, and at the time of the examination it was noted that one-half of the stomach was in the abdomen and the remainder in the scrotum along with the duodenal bulb and duodenal loop, jejunum, ileum and portions of the large bowel (Figs. 2 and 3). The patient consented to herniorrhaphy which was done on September 10, 1952. At the time of operation, the extra hepatic biliary tree was also found in the scrotum along with the above-mentioned organs. All of the contents of the scrotum could not be placed into the abdomen, and a ventral hernia was created with a transverse epigastric incision. The patient, however, was emphysematous and the decrease in respiratory reserve as a result of raising the diaphragm with increased intra-abdominal pressure proved too much for his adaptive mechanism. He died of respiratory failure on the first postoperative day.



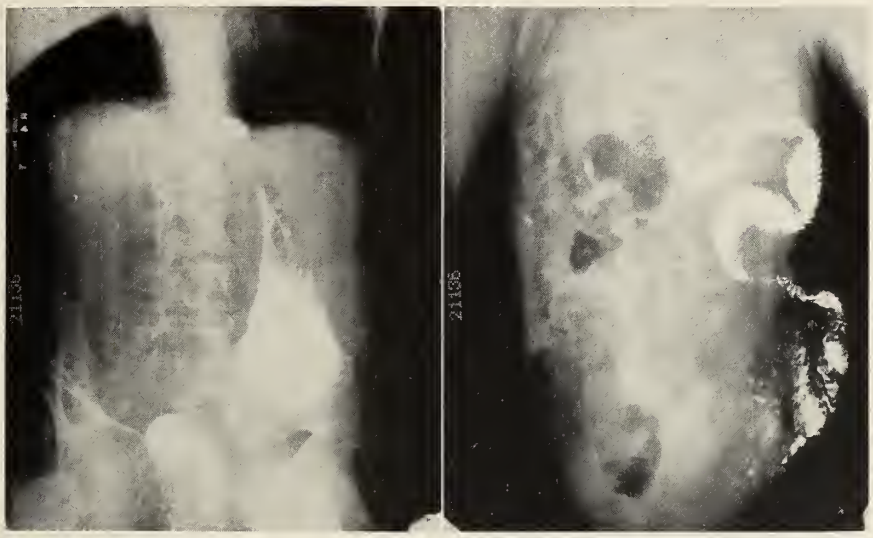
Fig. 1. Photograph of patient in standing position.

Discussion

According to Davey and Strange,[1] the stomach is attached to the posterior abdominal wall proximally at the point where the lesser gastric vessels enter the stomach and distally at the point where the common bile duct enters the duodenum. With this anatomical explanation, the authors suggest a mechanism by

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which the stomach is pulled into the scrotal hernia with the lead from the omentum. The end results of the "hammock effect," as described by Davey and Strange, were not present in our case, as the biliary tree and the entire duodenum were present in the scrotal hernia.



Figs. 2 and 3. Roentgenograms demonstrating early and later phases of upper gastrointestinal series.

It seems probable that other factors were operating in this case, such as relaxed peritoneal reflections, increased elasticity of mesentery or malrotation type anomaly, thus enabling such bizarre findings in a scrotal hernia.

Unless there is a constriction at the hernia ring, there may be no symptomatology to suggest gastric content in the scrotum.

Summary and Conclusions

1. Review of the literature revealed thirty-six cases of gastric herniation into the scrotum. Only six of these cases have been in the English language literature.

2. A case report of a large scrotal hernia containing stomach, duodenal bulb, duodenal loop, extrahepatic biliary tree, jejunum, ileum and parts of large bowel has been presented.

3. A new mechanism for presence of the stomach in scrotal hernia is suggested, inasmuch as the numerous and varied intra-abdominal organs are found in the scrotum. Malrotation anomaly or extreme elasticity of supporting tissues at distal stomach and bulb must have been operable in our case.

4. Symptomatology is insignificant in these conditions, unless there is a constriction of severe enough degree to cause obstruction.

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Superstition and Therapeutics in Medicine

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FAITH and religion are remarkable attributes of man. They are the great dispellers of the vales of doubt hanging before him giving him a glorious life after death and rewarding him for his deeds on the earth. They give man the Edens, the Olympias, the Valhallas and Paradise, as well as Hell and Purgatory. They form the great sheet anchor, the last retreat of troubled minds and bodies bringing the peace of security and the balm of prayer. They provide man with an immortality of soul thereby satisfying the great need of an encompassing ego. They give man a spiritual significance raising him from the drab depths of material existence to the pure heights of sublimest poetry. Faith and religion are great instincts of the mind, beginning where knowledge cannot enter and where philosophy and science must stop. For science says, "I do not know." And philosophy says, "There is nothing to be known." But religion says, "I know all, and I give all." And so faith and religion have been great uplifting forces in civilization giving man a morality, a code of laws and the security of a hereafter.

But if faith and religion as instincts and as abstract ideals have been of inestimable value to mankind, organized faith and religion in the avenues of ecclesiastical authority have often been its great scourge. Ecclesiastical authority was too often the great bulwark against knowledge and truth, fostering ignorance and chaining thought, holding one portion of mankind in the bonds of ancestor worship, antiquated ideas, and the sacred books of Buddah, Confucius and Mohammed, holding other portions of mankind in the trammels of Shamanism, demonology and fetish worship, and fettering the remainder of mankind to the weight of the letters of the scriptures of the Bible. It was ecclesiastical authority that became the great discourager of science, the great slower of the progress of civilization bringing down the darkness on the ages, fathering the inquisition, gagging Copernicus and the Galileos, burning Servetus and the Brunos, excommunicating the Spinozas.

"Nothing is to be accepted save on the authority of Holy Scripture." Thus edicted St. Augustine.

Is it any wonder that science and particularly medicine dependent on science did not progress very far? Is it any wonder that for thousands of years the art of healing stood still and even retrogressed behind that of the ancient civilizations? Forgotten the method of Hippocrates and Galen—the true method of science. Forgotten Socrates and Aristotle and Plato. Smothered the glow of the torch of knowledge. Superstition, the belief in supernatural agencies and the tyrannical authority of the written or spoken words of the past reigning supreme. So was it in China, so in India. So was it in Europe, and so in the ancient civilizations and the primitive peoples of today.

If all disease is caused by demons, or offended spirits of the dead, or offended spirits of animals and of many inanimate things, or as a result of the displeasure of the Gods, or as a punishment for sin, or as a result of the position of the heavenly bodies, or from the malevolence of magicians and sorcerers; if disease is due to superhuman agencies, then how is man to protect himself? How cure himself of disease? Obviously, by appeals to superhuman and supernatural agencies. Combat the supernatural with the supernatural. There is no need for an investigation of nature, or for experimentation. Man himself is impotent and entirely powerless in the face of his demons and displeased Gods. He must depend on higher powers. In fact man dare not investigate nature for he would be likely to offend a thousand and one demons ready to inflict every form of disease. He dare not dissect the human body for the spirit of the dead will enter the living body and gnaw out the



The Author

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intestines. Thus the caste Hindus and the Jews to this day shrink from touching the dead. Man dare not experiment with animals, for who knows what great God is incarnate in the particular animal, ready to bring down misfortune on the investigator; and seeing truth, man dare not mention it, for to defy the powers that be, to deny the sacred words, meant heresy and blasphemy punishable by a cruel death. Thus did man keep himself ignorant.

To prevent and to cure disease, one must combat the demons and evil spirits. Only those people with supernatural powers could do this. And so there arose medicine men, magicians, druids, and these became the physicians of all peoples. Such individuals inspired awe in the hearts of men purposely or otherwise. They appeared different, lived different and acted differently. Thus the medicine-men all over the world made weird noises at midnight; and there were mysterious doings in their places of abode, usually separated from the rest of the people. They dressed themselves in peculiar clothes and made mysterious excursions in the dead of night. And if they were subjected to convulsions of any sort, so much the better, for here was undeniable evidence in the twist and shaking of the body, in the frothing and bleeding of the mouth, of terrific struggles with demons. In fact, in certain parts of Africa today, mentally deranged persons are actually worshipped. Everyone is familiar with the peculiar antics and terrific appearance of the medicine men of the American Indian and of the Negro savages of Africa. Today, among the primitive peoples all over the world, medicine men are still the physicians, the prophets, the makers of rain, and the general controllers of the elements.

To repeat, to protect oneself from demons and evil spirits—supernatural powers of the earth, it is necessary to resort to supernatural powers. And so we find that man has had resource to peculiar rites and practices. Man has had to cajole, propitiate, coax, conjure, entice, threaten, and to drive out the demons of disease. Incantations, exorcisms, charms, amulets, talismans, et cetera; these have been the therapeutic measures used by mankind for many thousands of years, and in a great part of the world still in use today.

The Chinese, for centuries, have burned bonfires on the borders of their properties to keep evil spirits away. They beat gongs and set off firecrackers to frighten away the demons tormenting the sick. Some of the tribes of Australia place thorns and brush in the paths of the demons causing smallpox. The tribes of Timour-laut, near the Island of New Guinea, scar themselves on the arms and shoulders with red-hot stones, producing immense smallpox marks, thereby warding off that disease. The Chinese also have their children wear weird and ugly masks at certain times of the year to ward off the deity of smallpox. Certain tribes of Africa organize a hunt, during which they chase the demons with weapons and cries until they have chased them far beyond their boundaries. The beating of the drum has always been part of all the rites and ceremonies of primitive peoples; and the louder the beat of the drum, the more successful in chasing the demons away. Placing painted stones and cross bars at the entrance of a town or residence also kept demons of disease away. And this was a common therapeutic prophylactic measure resorted to by all peoples. Thus the peoples of the ancient civilizations set up statues of bulls and horses and other creatures, before the entrance to the house to guard against evil spirits. Thus the Jews to this day nail the "mezuza," which contains a sentence of sacred writing on the door post at the entrance to their homes. And on leaving and entering, this "mezuza" is touched with the middle finger of the right hand after which the finger is kissed. And this prevents the evil demons from entering.

Amulets, charms, talismans, these have been used universally to ward off disease. All the primitive peoples of the past, all the ancient civilizations, all the peoples of today, have implicit faith in the charm, the talisman, and the amulet. Almost anything and everything may be hung around the neck, as an imagined protection against disease spirits, witchcraft and other evils.

There are many classes of amulets, charms and talismans: (1) plants and herbs, (2) parts of animals, (3) parts of human bodies, (4) precious stones, (5) magic numbers (6) scripts, (7) inscriptions, (8) sacred names, (9) miscellaneous.

For thousands of years, plants and herbs have been used by man in sickness and disease. Their action however, was not attributed to a physiological cause but rather to magical virtues for it is the spirit of the plant which imparts healing powers. And so plants have been worn around the neck or carried about the person. Thus the savages of Africa wear healing roots around their necks when asleep. They chew the roots spitting the juice about the camp to ward off wild animals and evil spirits. Or the roots are burned and the smoke blown in all directions, thereby obtaining the same results. In his "Anatomy of Melancholy," Burton mentions St. John's wort, which

when gathered on a Friday in the hour of Jupiter and hung around the neck, cures head-melancholy. Anodyne necklaces made from the roots of peonies and worn around the neck of children was a great aid in teething. The peony also was considered sacred by the Greeks, having the power to drive away disease demons. Amulets from the wood of the Ash were used by the Assyrians against sorcerers. According to Pliny, any plant gathered before sunrise unnoticed by any other person, is a remedy for ague. Any plant growing on the head of a statue is a cure for headache. The common fumitory (Fumaria capreolata) has been used by many peoples to ward off evil disease spirits by its smoke. The plant pseudoanchusa when gathered with the left hand while the plucker uttered the patients' name, cures tertian fever when hung about the neck. Likewise, the seed of tribulus when worn as an amulet, cured varicose veins. In addition, purlane root, cyclamen feverfew and, in fact, any plant might cure disease when carried about the person. Children still wear pieces of camphor around the neck to this day.

Animals and parts of animals have always formed wondrous amulets against disease. The ancient Egyptians, Chaldeans, Babylonians, Greeks, Romans recommended the wearing of a beetle as a cure for quartan fever. A tick from a black dog's left ear when worn as an amulet allays all kinds of pains. A wasp carried in the left hand cures malaria. Wearing the dried tongue of a blue fox cures cataract. The hoof of the elk is used by the Norwegians as a cure for epilepsy. Pliny advises the rectum of an ossifrage to be worn as a cure for colic. According to Alexander of Tralles, however, the dung of a wolf when shut up in a pipe and carried about the person during the paroxysm was a better remedy for this affection. The heart of a lark when worn around the left thigh is also good for colic. This was practiced by the Thracians. In addition, the sinews of a vulture's legs will cure gout. This failing, the astragali of a hare are to be used as amulets. For every disease, there was a remedy in the part of an animal to be worn as an amulet. To this day, claws, fangs, teeth of animals, digits, et cetera, are still used as amulets.

The most important class of charms and amulets are parts of humans. Human excreta and human digits, nail parings, and human teeth have been used as amulets for thousands of years. Human spittle, according to Levinus Lemnius, is a cure for itch, scabs, creeping sores, and skin parasites when rubbed on the affected areas. Rubbing the muscles with spittle in the morning is prescribed in the "Saxon Leechdoms" for gout. A bit of a child's navel enclosed in a gold or silver box and worn about the person produces ease from pain, according to Alexander of Tralles.

The advent of Christianity did not change human nature. Human nature rather moulded Christianity to its own levels. And so we find the use of amulets, charms, relics, talismans, sacred scripts, as prevalent as before, even to this very day.

Glaucoma Family Study

Close relatives of patients with glaucoma appear to have a high susceptibility to the disease. If a family group behaves in the manner predicted from studies of the heredity of glaucoma, some 40 per cent of these persons eventually will develop glaucoma, warn Dr. Allan E. Kolker and Dr. Robert A. Moses of St. Louis, Missouri. Furthermore, there is evidence accumulating that manifestations of glaucoma in its early stages may be variable. "Thus, a patient who has demonstrated an abnormal finding on one occasion and shows the same test to be in the normal range on the second occasion, should be followed closely since the process might reverse itself yet again."—*Southern Medical Journal*, October, 1961.

Fair Play

The October newspapers in Michigan announced very carefully, in inconspicuous places, that certain insurance companies had been granted a rate increase. This caused very little comment. The Editor saw it and considered, Blue Shield executives saw it and made this comment in the *Blue Shield Record* for November 1961: "A Plymouth company had its rates raised last month by 37 per cent. Employes of a Detroit company had their monthly premiums upped by $9.50, while a Jackson company had its monthly premiums raised on a single policy from $10.17 to $15.17, and from $22.58 to $35.40 on a family contract. Another 50 per cent increase was imposed on members of an employe organization."

There was no organized demand from labor leaders or others that these companies be brought before the insurance commissioner and hold public hearings with testimony in Detroit, Lansing and Grand Rapids. The Governor did not appoint a commission to hold hearings, make newspaper broadcasts of incompetence or abuses. Rate adjustments were granted. These increases were granted quietly. In the old days, generally throughout the nation, when the prepayment plans needed rate adjustment, insurance companies made an application and appearance before the commissioner, presented their claims, and were considered quietly, fairly, and to the best interests of themselves and the public with no unfavorable publicity.

The Insurance Commissioner has a definite function—to determine through his inspectors whether the administration of the prepaid, or other insurance, is honest and efficient. He must protect the public from mal-administration and inefficiency. He also is obligated to protect insurance companies assuring them of public honesty, efficiency and respect. He owes the prepayment plans at least the same respect and consideration he gives to other companies in the same insurance field.

For the past several years, following demands from labor leaders and unions Blue Cross and Blue Shield have been scrutinized, lambasted, accused of every unethical activity possible and those hearings are not over yet. The Governor's Commission will still hold some hearings, and we are told a commission from the state legislature will also hold hearings. We have always felt such hearings would be all right if done quietly and judiciously, and without bombast or vicious publicity. The proceedings the medical and hospital group have suffered the past several years and are still passing through are completely uncalled for. The only excuse we can see is a determination to place the medical profession and its prepayment medical care in an unfavorable light for selfish reasons, which might be an attempt to grab power.



Federal Program

The administration in Washington has served notice upon the medical profession that it will attempt to force passage of legislation such as the King-Anderson Bill or some bill of the Forand type. The claim is made that the Kerr-Mills bill has disadvantages; primarily, it subjects the older people who need assistance in providing for their care *"to a means test"* as if that were reason for shame; something appalling—something to which no person should have to submit.

Secretary Ribicoff is one who made this charge and repeated it all over the country—spending government money for travel and for publicity purposes. He is the head of one of the greatest spending units ever devised. Where does that money come from? Most of us pay taxes. Isn't that a means test? It is a most intense scrutinty. Doesn't the department occasionally take a taxpayer and give him the works—even to putting him in jail for having resisted this means test?

The proposed additions to the social security measure are planned to raise sufficient money to pay for the "medical care" which all persons over 65 will receive free. We are being told there is an increase of 0.25 per cent for each person and an upping of the ceiling from $4800 to $5000. That is only the first step. The law provides that this rate can be increased to 20 per cent and the ceiling to $9000. This is a direct tax against the first income without any exemptions.

The social security department and the taxing power of the government could overreach and bring on a complete collapse of our financial system—especially if this theory of raising money continues in its present legislatively determined course.

The Kerr-Mills Bill

Ribicoff and his speech-makers have proclaimed that the Kerr-Mills bill is inadequate; that it cannot work. It is working abundantly well wherever the doctors and the public *and the politicians* have allowed it to work. A recent study has been made and was reported to the Council of the Michigan State Medical Society at its November meeting showing how the program is being worked. Numerous counties in Michigan and in many states are giving the services to those eligible aging persons, comparable to that provided by Blue Cross-Blue Shield for that age group. The law is there and can work. The great trouble is the administrators do not wish it—it precludes the drive to socialize our public as well as the doctors. This is the time and place where doctors must stand united, fearless. Only thus will they preserve their social rights.

About twelve years ago, a plan of that nature was suggested here in Michigan—arrangements made with Mr. W. J. Maxey of the Social Welfare Department. One county (Calhoun) agreed to take the amount then being paid for these services and to give the care expected, administering through the voluntary cooperation of Blue Shield. We believed we would save money. This was submitted to Washington and promptly denied. We believe—did then, and still do—that this program could have worked and would have worked. It is being worked now elsewhere. A number of states have arrangements with their social welfare departments whereby Blue Cross and Blue Shield are rendering this service on a payment basis by the state welfare departments. It is working well. Colorado is the most outstanding. Oregon, Washington, Nebraska and Utah are just a few. Michigan has the law authorizing the service. It could be done here. That is what the Kerr-Mills Bill was actually intended to accomplish.

That is the service which can be accomplished if the medical profession and the purveyors and providers of these services will only allow it to work. This is the program that the American Medical Association has approved through its House of Delegates. At its last session, the House urged the doctors and the public throughout the land to get together, throw aside the little disturbances or disputes or misunderstandings, recognize the basic demand for services and allow them to be rendered.

No program ever developed was perfect. Our Blue Shield program, in general, has approached perfection throughout most of the land and has been accepted and made to function quite generally. The profession now is facing a menace which demands that we do our part—give the services needed—and determine not to submit to the threat coming from Washington, the entrance of social security into the actual practice of medicine.

If that door is breached, we are headed along the same line which Britain and so many other countries have followed. Now is the time of choice. We can lose—many groups are wavering. Some doctors are wavering. This is not a time for dissent or noncooperation. The enemy forces are using unfair tactics—they are talking about "medical" care being given—what they want is a foot in the door after which they will include medical service, not a stroke of

which is now included in the present bill—just hospital service given by hospital employes, whether they have an M.D. or R.N. or other designation after their name.

The MSMS Presidents Program

The centennial of the Michigan State Medical Society's present organization will arrive in 1965. That will be the completion of 100 years since the reorganization of the society following the Civil War. One of the most outstanding ambitions of the profession throughout the years has been the betterment of care, medical conditions, medical opportunities, medical education. All of these projects have contributed to the increase of life expectancy which has now reached over 70 years. In our medical meetings, AMA, MSMS or County Society, we are impressed with the increasing knowledge, increasing skill, increasing research and the new things that are constantly being discussed at these meetings.

Some of our immediate past presidents conceived the idea that in preparation for our centennial celebration, the Michigan State Medical Society should point its efforts not so much to the increasing of length of life (that, of course) but to increased useful lives to be added to our population. Gilbert B. Saltonstall, M.D., then President-Elect, introduced a series of seventeen resolutions in the House of Delegates to point up this proposition. He had worked with George W. Slagle, M.D., then President, and with the immediately elected on-coming Presidents. This program has been followed through by Presidents Milton A. Darling, K. H. Johnson and Otto K. Engelke. Much of this work had been directed to the better care and attention, to the better functioning of older people.

Aging and the Aged

The Roleless Role.—The stereotypes are only too familiar: the rocking chair, the empty hands, the unwanted look, the passive posture. Are these the meaning of being old? Too long, says an elder statesman of modern sociology, have these myths persisted. These illusory cobwebs have ensnared the elderly in a "roleless role" without a vital function to perform. Ernest Watson Burgess would sweep away the cobwebs. Only with a fresh start, says the 75-year-old Professor Emeritus of Sociology at the University of Chicago, can the private task and public responsibility of understanding aging and the aged begin. . . .

The Mirror as Calendar.—A man who works with his brain for a living does not consider himself "old" until 70. A man who works with his hands thinks he is "old" at 60. An upper-class woman thinks she is "good-looking" at 35. Her lower-class sister feels she reaches the full flowering of beauty at 25. These are some of the views reflected from the inner mirror, when people are asked emotionally charged questions about growing old. An extensive University of Chicago study has shown how the image changes as the vantage point shifts and as the years pass.

The mirror tells a different story for men and for women. The first detailed profile of the attitudes of "middle age" and "old age" toward aging has come from the Kansas City Study of Adult Life, a large-scale study by the University's Committee on Human Development. . . .

The Productivity Puzzle.—Aging is full of paradox and contradiction. One man looks old at 40, another young at 70. The work load of an "old man" staggers a young person many years his junior. Retirement cannot come soon enough for one worker—for another, it comes too early. A number of University of Chicago studies have wrestled with these apparent conflicts, seeking "objective criteria" of aging—yardsticks more accurate than calendar or chronological age. . . .

Tests of Success.—Successful aging can be measured. The problem is to decide what to measure. If successful aging can be defined in "inner terms," then individuals can report their feelings of happiness and satisfaction with their present and past life. Havighurst and Mrs. Neugarten worked out measures for "inner" satisfaction and applied them to the Kansas City study population of people aged 40-85. . . .

Aging As Disengagement.—As he grows older, man "cooperates" in disengaging himself from society—he is not just "elbowed out" by younger people, as has been assumed. This "theory of disengagement" has been formulated by the Kansas City Study group of the Committee on Human Development. In social psychology, where a wealth of theories exist for the processes of development and maturation, there has been no general theory of aging—only the implicit assumption that "society withdraws from the older person and leaves him stranded." However, the Kansas City study group has come up with a tentative, but explicit alternative to this implied theory of the aging process, namely, that "the individual cooperates in a process of mutual disengagement which takes place between himself and society." . . .

The Broad Biological Theories.—Two conflicting theories of the fundamental biology of the aging process have arisen at the University of Chicago. One says literally that death is inherited—the product of the genetic makeup of the individual.

This is the conception of pioneer atomic scientist Leo Szilard, Professor of Biophysics at the University of Chicago Enrico Fermi Institute for Nuclear Studies.

The other theory contends that both hereditary and environmental factors are joined in the processes of aging and death.

This idea has been formulated by George Sacher, radiobiologist at the Argonne National Laboratory, which is operated by the University of Chicago for the United States Atomic Energy Commission.

In Szilard's theory, the time of death is precisely determined by an immutable progression of "aging hits," added to an original, inherited load of "faults" of a genetic nature.

In Sacher's, the time of death must necessarily contain "an irreducible element of uncertainty" due to the chance fluctuation both in the inner physiological condition of every human being and in the external stresses and strains on him. . . .— Excerpts from *The University of Chicago Reports*, November, 1961.

Michigan Clinical Institute, 1962

Sheraton-Cadillac Hotel, Detroit

WEDNESDAY-THURSDAY-FRIDAY, FEBRUARY 28, MARCH 1-2, 1962

Technical Exhibits

(Listed Alphabetically)

Abbott Laboratories
North Chicago, Ill. **Booth No. 43**
Abbott Laboratories invites you to visit their exhibit. Representatives will be happy to answer any questions you may have concerning leading products and new developments.

A. S. Aloe Company
St. Louis, Mo. **Booth No. 60**
See 2nd Century, a fresh original concept in professional furniture combining major advances in function, durability and beauty. Unique Vyn-Steel finish is a permanent laminate of virtually indestructible vinyl to steel. Choose from a brilliant galaxy of eight striking color combinations. Other Aloe specialties and new items are displayed.

Audio-Digest Foundation
Glendale, Calif. **Booth No. 38**
Audio-Digest Foundation (a non-profit subsidiary of the California Medical Association), gives the busy physician a time-saving tour through the best of some 600 current medical journals, plus the highlights of scores of national meetings. Time-proven, but still unique, these medical tape-recorded services are now offered in six series—General Practice (issued weekly and bi-weekly), and Pediatrics, Internal Medicine, Surgery, Obstetrics and Gynecology, Anesthesiology (all issued semi-monthly). Digest subscribers listen in their car, home or office. Carefully selected tape equipment for playing the digests is offered at the convention by Pacific Medical Equipment Company, the authorized Audio-Digest sales outlet.

Ayerst Laboratories
Chicago, Ill. **Booth No. 52**
The Ayerst exhibit will feature "RIOPAN" and "THIOSULFIL" FORTE. "RIOPAN", a true buffer antacid, provides rapid and prolonged relief of gastric hyperacidity. No side-effects have been reported. "THIOSULFIL" FORTE provides effective, safe and economical therapy for urinary tract infections responsive to sulfas. High concentrations at the site of infection are swiftly achieved because of "THIOSULFIL'S" unique action.

Barry Laboratories, Inc.
Detroit, Mich. **Booth No. 14**
Barry Laboratories will demonstrate its complete line of allergy diagnostic materials, the use of the Clinic Set, and the Pollen-Pak.
Representatives will answer questions concerning our highly effective Insect Antigen and Rhus-All.
Literature on Merphene, Atac and Barz and three new pharmaceuticals (Actide, Paliate and Pepcobron) will be available.

Cameron Surgical Instruments Co.
Chicago, Ill. **Booth No. 22**
We would like the opportunity of demonstrating to you our new Electrosurgical Units, Snares, Suction Coagulators and Biopsy Punches. Also showing illuminated Rectal Instruments (distal and proximal), Vaginal Specula, Otoscopes, Mouth Gags, Transilluminators, Headlites and other electrically lighted diagnostic instruments.

S. H. Camp & Company
Jackson, Mich. **Booth No. 15**
An entirely new concept in surgical garments will be on display, consisting of a new treatment for low back pain by pressurized therapy.
Based on the principle of the space suit used by jet pilots, it has an inflated pad covering the entire lumbar area. This pressurized support is used for conditions of low back pain such as osteo-arthritis of the lumbar spine, rheumatoid spondylitis, sciatica, sacro-iliac strain, herniated intervertebral disc, wear and tear of the lower back muscles, angina and arteriosclerosis of the arteries in the pelvis which can produce pain in the buttocks as well as in the lower back.
You will be surprised by the simplicity of operation and when worn is not discernible on the patient. Do not miss seeing this new innovation for low back syndrome.

Coca-Cola Company
Atlanta, Ga. **Booth Nos. 63-64**
Ice-cold Coca-Cola served through the courtesy and cooperation of the Detroit Coca-Cola Bottling Company, and The Coca-Cola Company.

Cunningham Drug Stores, Inc.
Detroit, Mich. **Booth No. 58**
Recent products of modern research will be featured that are available at Cunningham's Prescription Department, as well as many prescription products of all major pharmaceutical manufacturers.
Registered Graduate Pharmacists will staff the display and discuss the merits of Cunningham's Prescription Service.

Desitin Chemical Company
Providence, R. I. **Booth No. 27**
DESITIN OINTMENT: For treatment of burns, ulcers, diaper rash, abrasions, etc. DESITIN POWDER: Relieves chafing, sunburn, diaper rash, etc. DESITIN SUPPOSITORIES and RECTAL OINTMENT: Relieve pain and itching in uncomplicated hemorrhoids, fissures. DESITIN BABY LOTION: Protective, antiseptic. DESITIN ACNE CREAM: A non-staining, flesh-tinted "Medicream" for the treatment of Acne Vulgaris. DESITIN COSMETIC & NURSERY SOAP: Supermild. DESITIN SUPPOSITORIES with HYDROCORTISONE: Prompt response to inflammatory conditions in proctitis, severe pruritus, edema. DESITIN OINTMENT with HYDROCORTISONE: Provides hydrocortisone 1% (as the alcohol) added to the well known Desitin formula of Norwegian cod liver oil. DESITIN HYDROCORTISONE CREAM: Non-staining, washable hydrophilic base with sol. al. acetate. An elegant cosmetic preparation with HC 1%. DESITIN COR-D-TAR CREAM: Desitin Cor-D-Tar Cream—non-staining hydrophilic base with a special solution coal tar 3% and non-staining diiodohydroxyquin 2%. For bacterial-fungal-infectious eczematous discomfort.

Eaton Laboratories, Inc.
Norwich, N. Y. **Booth No. 42**
Our Medical Service Representatives at the Eaton Booth welcome the opportunity to be of service to you. Complete information is available concerning the nitrofurans, The Eaton Medical Film Library, Student A.M.A. Photo Salon and other special services to the profession.

Encyclopedia Americana
Grand Rapids, Mich. **Booth No. 4**
You are cordially invited to inspect the 1962 Edition of Encyclopedia Americana, and it is with particular pride that we announce that General Dwight D. Eisenhower is Chairman of our Editorial Advisory Board.

Encyclopaedia Britannica
Detroit, Mich. **Booth No. 33**

Ethicon Incorporated
Somerville, N. J. **Booth No. 7**
Tru-Chromicized, Tru-Gauged, Collagen Pure properties of ETHICON* surgical gut, electron beam sterilized in easy-open foil packages, in sterile wet or dry put-ups, will be demonstrated, along with a complete line of ATRALOC* needle sutures. New LIGAPAK* reel for ligating will be featured as will a full line of MERSILENE* polyester fiber sutures.

*Trademark

Ferndale Surgical, Inc.
Ferndale, Mich. **Booth No. 53**
LIXAMINOL and LIXAMINOL AT: An unique Elixir of Aminophyline that provides a rapidity of bronchial-vaso dilation more similar to an IV injection of aminophyline than to the oral route. LIXAMINOL AT (antitussive): Lixaminol fortified with an effective non-narcotic antitussive agent.
NIAPENT TABLETS and ELIXIR: An unique formula designed to counteract cerebral anoxia, and increase circulation to the CNS tissue.

C. A. Fisher & Sons
Toledo, Ohio **Booth No. 29**
Your ZIMMER distributor, C. A. Fisher & Sons, extends a cordial invitation to visit their booth where the latest in Fracture Equipment and Appliances will be on display. Of special interest is HEMO VAC, the disposable pump and wound tubing for wound suction drainage.

Fuller Pharmaceutical Company
Minneapolis, Minn. **Booth No. 8**
THERAPADS—A unique, different, convenient approach to daytime acne care will be shown for the first time. Of course, TUCKS and its witch hazel analogue TRIAMEL Ointment and Cream are both on hand to renew old acquaintance and make new friends. Another interesting item is the Fuller Shield specifically designed for use after anorectal surgery—no tape—no soiled linens—a time saver in every way. THERAPADS, TUCKS, TRIAMEL and FULLER SHIELDS for personal use or clinical trial will be gladly sent you on request.

Hack Shoe Company
Detroit, Mich. **Booth No. 2**
Entering its 47th year of service to the profession, the HACK SHOE COMPANY has just opened its 4th store, at 235 Pierce Street, Birmingham.
This exhibit will offer a representative listing of the various HACK SHOES for men, women and children carried in stock at the new store.

G. A. Ingram Company
Detroit, Mich. **Booth Nos. 65-66**
THE G. A. INGRAM COMPANY will exhibit the new sets of surgical instruments for cardiovascular, thoracic, and intestinal operative procedures; new diagnostic aides for cardiac and respiratory ailments, and new items for cancer detection. Also on display will be time-saving disposable and sundry items for the doctor's office.

Johnson & Johnson
New Brunswick, N. J. **Booth No. 28**
Johnson & Johnson will display the latest improvements in surgical dressings, as developed by the Johnson & Johnson Research Laboratories. Of special interest is SURGICEL Absorbable Hemostat, a major advance in the control of hemorrhage which does not depend upon the normal clotting mechanism. Other products, designed for your office, hospital or patient use, are also displayed. You will find well-informed representatives pleased to discuss these products or provide information on any other items made available by the world's largest manufacturer of surgical dressings and baby products.

A. Kuhlman & Company
Detroit, Mich. **Booth No. 30**
The A. Kuhlman & Company cordially invites you to visit Booth No. 30 and discuss with us our complete line of examining room furniture, diagnostic instruments, surgical instruments and physical therapy equipment.

Lederle Laboratories
Pearl River, N. Y. **Booth No. 48**
Your Lederle representative will be on hand to serve you. He can furnish information on any Lederle product and is prepared to bring to bear on any of your medical problems the knowledge of the world-wide Lederle research organization.

Eli Lilly & Company
Indianapolis, Ind. **Booth No. 61**
You are cordially invited to visit the Lilly exhibit located in space number 61. The Lilly sales people in attendance welcome your questions about Lilly products and recent therapeutic developments.

J. B. Lippincott Company
Philadelphia, Pa. **Booth No. 6**
J. B. Lippincott Company presents, for your approval, a display of professional books and journals geared to the latest and most important trends in current medicine and surgery. These publications, written and edited by men active in clinical fields and teaching are a continuation of more than 100 years of traditionally significant publishing.

C. DeWitt Lukens Co.
St. Louis, Mo. **Booth No. 36**
We are showing several new developments this year which we would like to discuss with you, as well as new packaging, developed after ten years of research. We have several types of suture material which will be of interest to you. We look forward to seeing you at our booth.

Maico Hearing Service
Detroit, Mich. **Booth No. 67**
The new Maico Hearing Aid weighing less than one-half ounce is so small that the entire unit consisting of transmitter, microphone, receiver, battery, and ear mold is worn in the ear. A complete line of instruments to take care of cases from the borderline to the profoundly deaf.
Ninety per cent of all precision hearing test instruments used in America by ear physicians are Maico.

Marion Laboratories, Inc.
Kansas City, Mo. **Booth No. 31**

DUOTRATE

Cardiovascular problems requiring vasodilation can be effectively treated with less expense, less inconvenience and greater therapeutic effect. Duotrate PLATEAU CAPS provide a continuous method of drug release

on a b.i.d. dosage—available in four dosage combinations. We invite you to visit our booth for information and reprints of current studies.

Mead Johnson Laboratories
Evansville, Ind. **Booth No. 70**
The Mead Johnson Laboratories' exhibit has been arranged to give you the optimum in quick service and product information. To make your visit productive, specially trained representatives will be on duty to tell you about their products.

Medco Products Company
Tulsa, Okla. **Booth No. 46**
Presenting the MEDCO-SONLATOR. Providing a new concept in therapy by combining muscle stimulation and ultra sound through a SINGLE Three-Way Applicator.
The MEDICO-SONLATOR is a distinct advance in the effectiveness of physical therapy in your office or hospital. A few minutes spent in our booth should prove of value to your practice.

Medical Protective Company
Fort Wayne, Ind. **Booth No. 32**
As the No. 1 Malpractice Insurer, The Medical Protective Company offers unexcelled coverage. With exceptional proficiency in defense, so essential to the Doctor's protection today, its experience in successfully handling 82,000 claims and suits during sixty-three years of Professional Protection Exclusively is unparalleled in the professional liability field.

Merck Sharp & Dohme
West Point, Pa. **Booth No. 9**
The theme of the Merck Sharp & Dohme exhibit is "SERVICE TO MEDICINE." One phase features the details of the Merck Sharp & Dohme Postgraduate Program. Another feature includes information on teaching films for use by the profession, and also, lay films that can be utilized to portray the story of medicine to the lay public. The exhibit is concluded with a display of finger-tip files on selected Merck Sharp & Dohme products.

Wm. S. Merrell Company
Cincinnati, Ohio **Booth No. 24**
Merrell men always have an up-to-date status report on Merrell's significant prescription products. They will be happy to convey latest clinical reports to you in summary form when you visit the Merrell booth.

Michigan Association of Collection Agencies
Battle Creek, Mich. **Booth No. 59**

Michigan Medical Service
Detroit, Mich. **Booth No. 3**
You are cordially invited to visit Booth No. 3 to obtain current information regarding Michigan Medical Service (Blue Shield). Representatives will gladly visit with you and answer any questions you may have with regard to your Blue Shield Plan.

MSMS Life, Health & Accident Insurance Program
East Lansing, Mich. **Booth No. 20**
You are cordially invited to stop at Booth No. 20 and discuss the MSMS Life, Health, and Accident Insurance Program.
Representatives of the MSMS carriers will be present to answer questions concerning your MSMS group coverage.

Milex Products
Oak Park, Mich. **Booth No. 49**
Milex Company is again pleased to exhibit its unique gynecic specialties: Trimo-San for poly vaginal disorders; the side seal "suction" Diaphragm; Milex folding and boilable pessaries; Amino-Cerv; a new formula cervical creme; infertility items, as well as counselling books: menopause, marital, and teenage guides.

Ortho Pharmaceutical Corporation
Raritan, N. J. **Booth No. 39**
On display at Booth No. 39 is a complete line of products for the control of conception. Of special interest is DELFEN Vaginal Cream, the most spermicidal contraceptive. Representatives on hand will be pleased to answer your questions on this and our other well-known products.

Parke, Davis & Company
Detroit, Mich. **Booth Nos. 40-41**
Medical service members of the Parke, Davis staff will be in attendance at Booth Nos. 40-41 to discuss important Parke-Davis specialties which will be on display.

Pfizer Laboratories
New York, N. Y. **Booth No. 44**
The Pfizer Laboratories' display has been specifically arranged for your convenience and to give you the maximum in quick service and product information. To make your visit worth while, technically trained Medical Service Representatives will be on hand to discuss with you the latest developments in Pfizer research.

Plough Laboratories, Inc.
Memphis, Tenn. **Booth No. 62**
The Plough Laboratories display includes two demonstrations of the unique pharmacological activity of SILAIN, a gastrointestinal defrothicant.
In vitro—SILAIN breaking the foam which holds much gas—aids in its elimination.
In vivo—gastroscopic photographs show SILAIN'S effect on foam in the stomach.

Randolph Surgical Supply Company
Detroit, Mich. **Booth Nos. 10-11**
Randolph Surgical Supply Company will be displaying a complete line of Dallons Laboratory equipment, which will consist of Cardiological Monitoring and resuscitation, along with physical therapy, plus many other items of leading manufacturers.
Randolph's booth will be staffed with competent and experienced personnel to demonstrate the equipment on display.

R. J. Reynolds Tobacco Company
Winston-Salem, N. C. **Booth No. 5**
Welcome to the R. J. Reynolds Tobacco Company Exhibit! You are cordially invited to receive a cigarette case (monogrammed with your initials) containing your choice of CAMEL, WINSTON Filter, Methol Fresh SALEM, or CAVALIER King Size Cigarettes.

Roche Laboratories
Nutley, N. J. **Booth No. 23**
Librium—A therapeutic agent for superior, safer, faster control of nervousness, anxiety, tension and other common emotional disturbances without the dulling effect or depressant action of the tranquilizers.
Gantanol—A single sulfonamide for the common bacterial infections encountered in daily practice.

Ross Laboratories, Inc.
Columbus, Ohio **Booth No. 37**
Ross Laboratories, manufacturer of Similac, features Similac With Iron, supplying 12 mg. of ferrous iron per quart of feeding at no additional cost. The newest booklet in the Ross Developmental Aids will be on display at the booth.

C. J. Rouser Supply Company
Lansing, Mich. **Booth No. 35**

The Rupp & Bowman Company
Highland Park, Mich. **Booth No. 45**
You are cordially invited to visit Booth No. 45. On hand to greet and assist you will be some of the Rupp & Bowman staff.
Some new items of interest to you will be displayed.

Ryter Corporation
Milwaukee, Wis. **Booth No. 50**
The Ryter Corporation exhibit will demonstrate their exceptionally complete Ryter designer, builder and consultant service to physicians for medical office buildings.

Sanborn Company
Waltham, Mass. **Booth No. 17**
The new SANBORN/FROMMER CELL COUNTER, as well as new ELECTROCARDIOGRAPHS of advanced design and function, together with the latest models of other instruments for diagnostic use, will be displayed and demonstrated at the Sanborn Company Booth No. 17.
Demonstrations and/or data will also be available on Sanborn instruments for biophysical research—single and multi-channel recording systems, monitoring oscilloscopes and physiological transducers.
Qualified Sanborn representatives will be pleased to answer questions and assist you with technical problems.

Sandoz Pharmaceuticals
Hanover, N. J. **Booth No. 25**
Sandoz Pharmaceuticals cordially invites you to visit our display at Booth No. 25 where we are featuring Mellaril, Torecan.
Any of our representatives in attendance will gladly answer questions about these and other Sandoz products.

W. B. Saunders Company
Philadelphia, Pa. **Booth No. 1**
Of the Saunders titles to be published this year, these have special clinical appeal—Conn: Current Therapy 1962; Williams: Endocrinology; Graham: Cancer of Cervix; plus many new and current books.

Schering Corporation
Bloomfield, N. J. **Booth No. 18**
You are cordially invited to visit the Schering technical exhibit where the following products will be featured: Celestone, most active corticosteroid available; Rela, a muscle relaxant-analgesic that relieves pain and muscle spasm; and Delenar, the corticoid-muscle relaxant-analgesic that keeps the rheumatic man in motion.

Julius Schmid, Inc.
New York, N. Y. **Booth No. 21**
An interesting and informative exhibit featuring IMMOLIN Vaginal Cream-Jel for use without a diaphragm; RAMSES Felixible Cushioned and BENDEX Diaphragms; RAMSES Vaginal Jelly; VAGISEC Jelly and Liquid for vaginal trichomoniasis therapy; and XXXX (FOUREX) Skin Condoms, RAMSES, SHEIK and ESQUIRE Rubber Condoms for the control of trichomonal re-infection.

G. D. Searle & Company
Chicago, Ill. **Booth No. 69**
You are cordially invited to visit the Searle booth where representatives will be happy to answer any questions regarding Searle Products of Research.

Smith, Kline & French Laboratories
Philadelphia, Pa. **Booth No. 19**
Representatives welcome the opportunity to discuss the application of SK&F products to your specialty and are always ready to be of help in any way they can. Products featured are: (1) Ornade® Spansule® capsules; (2) Parnate® tablets; (3) Stelazine® TABLETS; (4) Combid® Spansule® capsules; and (5) Thorazine®.

E. R. Squibb & Sons
New York, N. Y. **Booth No. 13**

The Stuart Company
Pasadena, Calif. **Booth No. 51**
A cordial invitation is extended to all members and guests attending this meeting to visit the Stuart Company booth. Specially trained representatives will be in attendance to answer your questions on new products developed in our new and modern laboratories which have received international acclaim.

S. J. Tutag & Company
Detroit, Mich. **Booth No. 54**
S. J. TUTAG & COMPANY will introduce a new antiobesity agent for prompt and emphatic hunger control—with little if any central nervous system stimulation.
CYDRIL is a new chemical compound that possesses anorectic action with low toxicity. CYDRIL is available in two forms, tablets and the sustained-release Tutag Granucap.*
Adults and children over 12 years, one CYDRIL tablet three times daily, preferably ½ hour before meals, or one CYDRIL Granucap* in the morning.

*Granucap—T.M. Reg. US Pat. Off.

The Upjohn Company
Kalamazoo, Mich. **Booth No. 16**
Professional representatives of The Upjohn Company are eager to contribute to the success of your meeting. We are here to discuss with you products of Upjohn research that are designed to assist you in the practice of your profession. We solicit your inquiries and comments.

U. S. Vitamin & Pharmaceutical Corporation
New York, N. Y. **Booth No. 47**
On display—ARLIDIN—a specific safe vasodilating, vaso-relaxant drug which effectively increases blood flow to the brain, inner ear, eye and extremities. In arteriosclerosis obliterans, diabetic vascular disease, thromboangiitis obliterans and ischemic ulceration, ARLIDIN increases walking ability; promotes healing of ulcers; alleviates pain, ache, spasm and numbness.

Wyatt Surgical Supply Corp.
Adrian, Mich. **Booth No. 34**
Featuring Davis & Geck sutures and other products manufactured by Surgical Products Division of American Cyanamid, as well as new money-saving disposable products used in the hospital and doctors' offices.

MEETINGS OF SPECIAL SOCIETIES, ALUMNI AND ANCILLARY GROUPS

TUESDAY, FEBRUARY 27, 1962

Michigan Chapter, American Academy of Pediatrics will meet Tuesday, February 27, 1962, at Henry Ford Hospital Auditorium, Detroit, Michigan.

Morning Session—10:00 A.M.

"Observations on the Effect of Oral Phosphate Therapy in Patients with Rickets of Vitamin D Refractory Type"
Boy Frame, M.D., Richmond W. Smith, M.D., Joseph L. Fleming, M.D., and Gordon Manson, M.D., The Henry Ford Hospital, Detroit

"Chromosomal Abnormalities"
Nirmala Kesare, M.D., Children's Hospital of Michigan, Detroit

"Congenital Tumors of Fibrous Origin"
Leonard Goslee, M.D., Children's Hospital of Michigan, Detroit

"The Relationship of Birth Weight to the Depauperate Newborn Infant"
John A. Churchill, M.D., Lafayette Clinic, Detroit

"The Law, The Pediatrician and The Child"
E. Donald Shapiro, Institute of Continuing Legal Education, University of Michigan, Ann Arbor

"Recent Advances in the Surgical Aspects of Congenital Heart Disease"
Robert F. Zeigler, M.D., The Henry Ford Hospital, Detroit

Lunch—12:30 P.M.

Henry Ford Hospital

Afternoon Session—2:00 P.M.

"How Effectively Can We Meet the Needs of Our Disturbed Families?"
Ralph D. Rabinovitch, M.D., Hawthorne Center, Northville

"Paroxysmal Nocturnal Hemoglobinuria"
David J. Transue, M.D., and Gordon Manson, M.D., The Henry Ford Hospital, Detroit

"Changes in Oxygenation in the Newborn Infant at the Time of Birth"
Steve Koeff, M.D., University Hospital, Ann Arbor

"The Use of Tape Recordings in the Diagnosis of Brain Damage in the Newborn and Young Infant"
Samuel Karelitz, M.D., Long Island Jewish Hospital, New Hyde Park, Long Island, New York

"Some Aspects of Pediatric Rehabilitation"
David G. Dickinson, M.D., University Hospital, Ann Arbor

Evening Activities

Sheraton-Cadillac Hotel, English Room

Cocktails—6:00 P.M.

Courtesy of Mead Johnson & Company

Dinner—7:00 P.M.

Address—8:00 P.M.

"Measles Immunization"
Samuel Karelitz, M.D.

WEDNESDAY, FEBRUARY 28, 1962

Detroit Academy for the Surgery of Trauma and the Michigan Chapter, American College of Surgeons, 12:30-2:00 p.m. luncheon-meeting in the Washington Room, Sheraton-Cadillac Hotel.

THURSDAY, MARCH 1, 1962

Michigan Chapter, American College of Chest Physicians and the Michigan Thoracic Society, 3:00 p.m. meeting in the Washington Room followed by 6:00 p.m. reception and dinner in the Sheraton Room, Sheraton-Cadillac Hotel.

Michigan Academy of General Practice, Board of Directors, 12:00 noon luncheon meeting in the Mason Room, Sheraton-Cadillac Hotel.

Michigan Proctologic Society will have a 6:30 p.m. reception followed by dinner and meeting in the Washington Room of the Sheraton-Cadillac Hotel

Michigan Diabetes Association will meet at 6:00 p.m. for reception-dinner-meeting, East and West Rooms of the Sheraton-Cadillac Hotel. Garfield G. Duncan, M.D., Philadelphia, will speak on "Perspectives in Diabetes."

Tenth Annual Student-Intern-Resident Conference, Thursday, March 1, 1962, in the English Room, Sheraton-Cadillac Hotel.

Afternoon Session—3:00 P.M.

"The Responsibility of Residents, Interns, and Medical Students to their Country Through the Selective Service System"

Frank B. Berry, M.D., Advisor to the Secretary of Defense, Washington, D. C.

General Discussion (10 minutes)

"An Editor's Look at the New Generation in Medicine"
Frank Angelo, Managing Editor, *Detroit Free Press*

General Discussion (10 minutes)

"Public Relations." Movie
Harvey C. Hallum of Mead Johnson & Company, Evansville, Ind.

"Medical Educators View the Economic Problems of the Student, the Intern, and the Resident"
Dean Gordon H. Scott, Ph.D., Detroit, Wayne State University School of Medicine and Dean Wm. N. Hubbard, M.D., Ann Arbor, University of Michigan Medical School

Reception—5:30 P.M.

Reception in honor of MSMS President Otto K. Engelke, M.D., of Ann Arbor, and his wife

Host: Mead Johnson and Company of Evansville

This is a program which should appeal to every medical student, intern, and resident in the State of Michigan, and it is expected that all hospitals will cooperate in sending their house officers to this afternoon meeting.

FRIDAY, MARCH 2, 1962

Michigan Society of Obstetrics and Gynecology, 12:00 noon luncheon-meeting in the English Room of the Sheraton-Cadillac Hotel. The proposed subject is "Carcinoma of the Cervix in Pregnancy."

The following doctors are contemplated for this panel: Joseph M. Daly, M.D., Assistant Professor of Obstetrics and Gynecology, Temple University School of Medicine, Philadelphia; John L. McKelvey, M.D., Professor of Obstetrics and Gynecology, University Hospital, Minnesota; Harold Henderson, M.D., Detroit; Charles S. Stevenson, M.D., Detroit.

Wayne State University College of Medicine Alumni Association will maintain headquarters in the Sheraton-Cadillac Hotel during the Michigan Clinical Institute. All alumni, their guests, and friends of Wayne State University are cordially invited to visit the headquarters. The room location will be posted at the registration desk.

Michigan Medical Alumni Association will have open-house in the headquarters suite in the Sheraton-Cadillac Hotel during the Michigan Clinical Institute. The room location will be posted at the registration desk.

Merge Education, Research Foundations

Effective this year, the American Medical Education Foundation, established in 1951 for the purpose of providing financial assistance to medical schools, and the American Medical Research Foundation, established in 1957 for broader purposes, have been consolidated within the framework of a single Foundation—the American Medical Association Education and Research Foundation.

At the same time, these programs will be expanded and a concerted effort made to provide increased financial assistance to medical schools, in addition to financing the other projects of the Foundation.

The AMA-ERF seeks financial support from physicians, constituent and component medical societies, the Woman's Auxiliary, philanthropic organizations, business entities, and the general public. Within the limitations of the financial needs of its various projects, the Foundation encourages contributors to designate which project they wish to support and, in the case of financial assistance to medical schools, to designate the specific school which is to receive their contribution.



Plan Hospital Week

"Your Hospital . . . Uniting Science and Personal Care" will be the slogan of the 1962 National Hospital Week, May 6-12. Marking the 40th year of national recognition of hospital progress, this year's emphasis will be on the hospital's use of science to implement and enhance "tender loving care."

Stress Poison Prevention

March 18-24, 1962, will be the first annual observance of National Poison Prevention Week. Congress recently authorized the President to designate the third week of March each year as National Poison Prevention Week, "to aid in encouraging the American people to learn of the dangers of accidental poisoning and to take such prevention measures as are warranted by the seriousness of the danger."

Digest Presented of AMA Actions

Medical matters and socio-economic topics shared the spotlight at the clinical meeting of the AMA House of Delegates at Denver.

One of the pre-meeting activities was a special conference on athletic injuries. Demonstrations were made of new equipment new ideas, in an effort to overcome the over 25 deaths there have been from football injuries. Harry A. Towsley, M.D., of Ann Arbor took a leading part of this work.

The Council on Medical Service and the Blue Shield officials had several days of interesting conferences paying special attention to building up a nation program by which Blue Shield policies can be sold nationwide to such employers. Particular stress was paid to care of the aged. Speakers viewed Blue Shield and prepayment plans as the major weapon to combat King-Anderson or Forand type legislation.

* * *

ANOTHER SPECIAL ACTIVITY was the formation of the American Medical Political Action Committee. Speakers pointed out the dangers facing medicine through proposed legislation.

William A. Hyland, M.D., Grand Rapids, made a special report of the Committee on Communications to the House of Delegates, stressing the fact that many of our medical communications to the public do not carry conviction, or do not get the reception intended. He also mentioned the reception of the King-Anderson program and the AFL-CIO attitude. He said that "medicine was confronted by its most profound challenge in history." "This is no parlor game. Our adversaries are just as adamant as we are."

George W. Slagle, M.D., Battle Creek, and O. J. Johnson, M.D., Bay City, served on reference committees.

* * *

A NUMBER OF MICHIGAN men took part in presenting scientific papers or exhibits: Frederick C. Swartz, M.D., Lansing; W. L. Lowrie, M.D., H. L. Johnson, M.D., W. E. Redfern, M.D., J. B. Bryan, M.D., John W. Sigler, M.D., Fred W. Whitehouse, M.D., and F. P. Rhoades, M.D., all of Detroit; A. B. Varley, M.D., Kalamazoo; William Martel, M.D., Ivan Duff, M.D., Leonard F. Bender, M.D., James W. Rae, Jr., M.D., Edwin M. Smith, M.D., all of Ann Arbor.

* * *

LEONARD W. LARSON of Bismarck, N. D., AMA president, told the opening session of the House that proposals to incorporate health care benefits into the Social Security system "would certainly represent the first major, irreversible step toward the complete socialization of medical care."

The compelling issue, Dr. Larson declared, is socialization versus voluntarism—or compulsion versus freedom of choice. He predicted that courage, determination and the will to win on the part of physicians will bring the defeat of the King-Anderson bill in Congress next year.

Dr. Larson emphasized that the AMA will continue to give primary attention to implementing the Kerr-Mills Act in the states, promoting voluntary health insurance and prepayment plans designed for the aged, and upgrading nursing homes.

The House of Delegates gave enthusiastic approval to Dr. Larson's address and took several actions reaffirming strong support for the Kerr-Mills program to aid the needy and near-needy aged, and urging a concerted, determined fight against Social Security health care proposals in Congress.

The House advised all state and county medical societies to recognize the impending threat and to prepare now for any eventuality by continuing to oppose any scheme which tries to impose a substandard system of medical care on the American people.

* * *

THE HOUSE AGREED with the intent of five resolutions which expressed strong dissatisfaction over recent statements by a spokesman for the American College of Surgeons, and it also approved a Board of Trustees report which expressed hope that the meeting "will lead to a unification of effort in behalf of American medicine."

The House heartily approved the purposes and goals of the recently organized American Medical Political Action Committee and urged all physicians, their wives and interested friends to join AMPAC and other political action committees in their states and communities. "Effective political action must be carried on at the local level and effective implementation must be done by local groups of physicians," the House said.

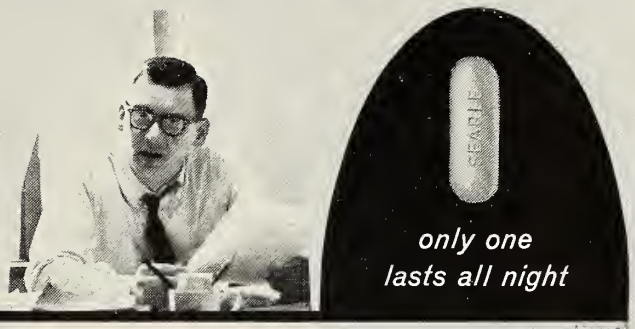
The House approved the expanded activities of the Judicial Council, which has taken over permanent responsibility in that area, and said that the Council program should benefit all physicians, the public and the profession.

* * *

THE HOUSE ADOPTED a resolution which urged that medical societies at the local, county, district or state levels throughout the United States should encourage, stimulate and participate in surveys to determine the percentage of individuals in each community who have undergone immunizing procedures for poliomyelitis.

(Continued on Page 228)

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Research in the Service of Medicine

Digest of AMA Actions

(Continued from Page 226)

The resolution stated that on the basis of the results of the surveys, the local medical society should determine the type of vaccine and the most effective type of program which will be of greatest benefit to the public.

* * *

IN CONSIDERING A WIDE variety of resolutions and annual and supplementary reports, the House also:

Disapproved of two proposals which would have required that resolutions be introduced 30 and 45 days, respectively, before Association meetings.

Approved a statement that physicians have an ethical obligation to participate in medical society activities and express their opinions fully and freely.

Reaffirmed AMA policy that it is not considered unethical for a physician to own or operate a pharmacy provided there is no exploitation of the patient.

Agreed with the Judicial Council that the physician himself is responsible for the control and custody of drug samples once they come into his possession, and in the high tradition of the medical profession he should not dispose of them in any way that could cause harm to others.

Commended those constituent medical societies which have moved forward in the area of *human relations* by eliminating membership restrictions based on race or color.

Approved a recommendation that a special House Committee be appointed to investigate all facets of the operation of the *Joint Commission on Accreditation of Hospitals.*

Agreed with the Board's choice of Miami Beach, Florida, as the site for the 1964 Clinical Meeting.

Approved the combining of the American Medical Education Foundation and the *American Medical Research Foundation into the American Medical Association Education and Research Foundation,* effective next January 1.

Reaffirmed the previous policy that physicians should have the privilege of prescribing drugs by either generic or brand name.

Approved the principle of income tax deductions for medical care of the aged.

Referred to The Council on Medical Service a resolution proposing the use of state and federal tax funds to provide voluntary prepayment health insurance protection for the aged. In a related action the House approved of experimentation with prepayment plans under assistance programs.

Urged more vigorous promotion of voluntary nonprofit prepayment health plans.

Urged every physician in the United States to use automobile seat belts.

The AMA Board of Trustees presented a special citation to the producers and cast of The Donna Reed Show for its "contribution to public understanding of the high ideals of the medical profession."

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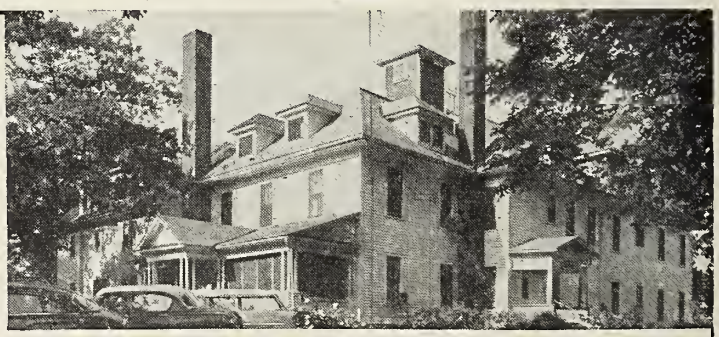
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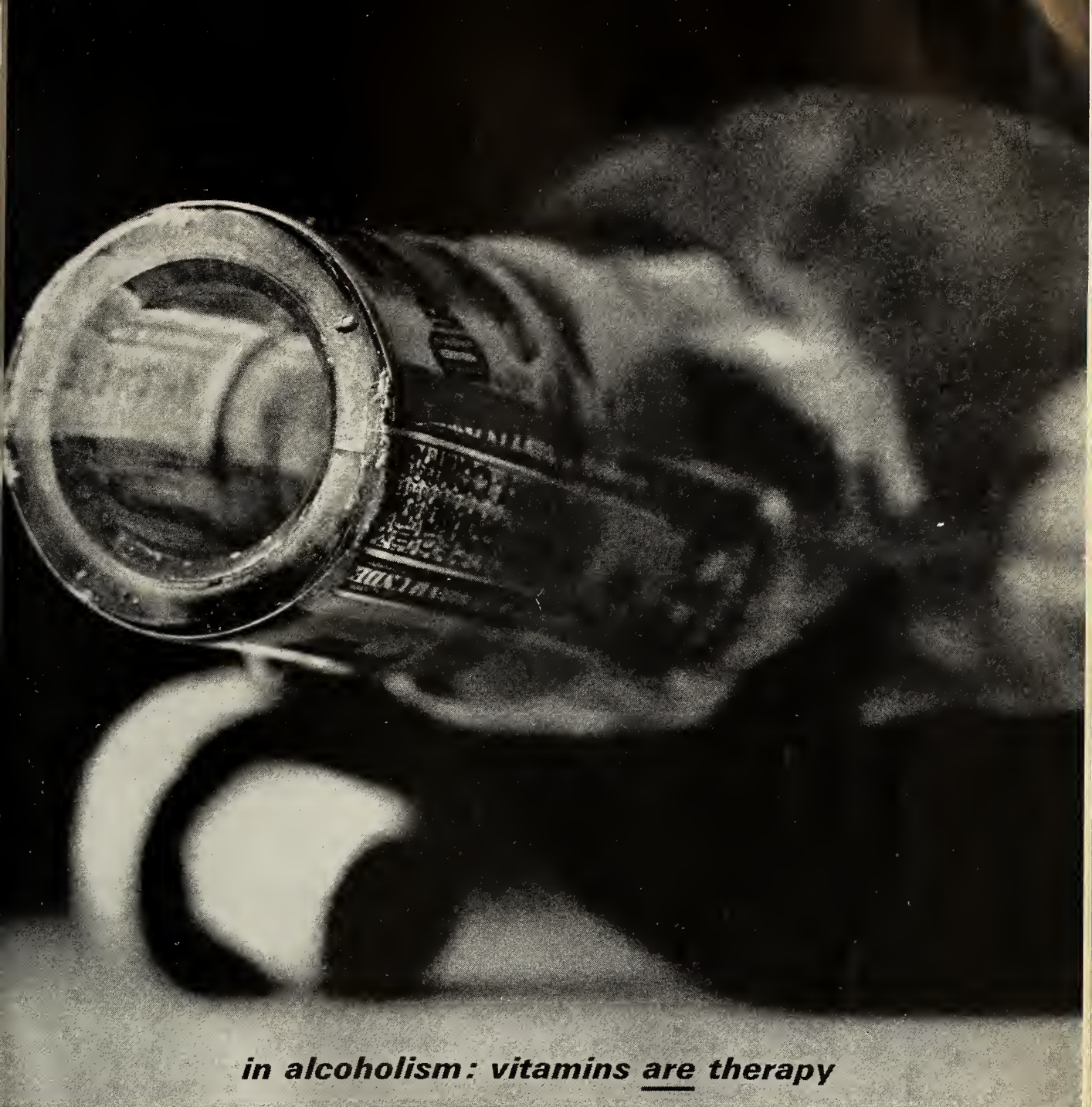
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Pathology Comment

Items published here are provided by the Michigan Pathological Society

Antibiotic Induced Bacterial Resistance

A Consideration in V-D Control

The emergence of drug-resistant Staphylococcus infections has been an aggravating but not an unexpected development of this antibiotic age. Other organisms too have shown a tendency to acquire such resistance; examples are tubercle bacilli and streptococci. Such resistance appears to be directly proportional to the use of antibiotics in general; and to the frequency of human microbial passage, or the infection rate. The present countrywide, if not worldwide, situation in regard to the two most serious venereal diseases, treponemal and gonococcal infections, appears to meet the basic premises on which rest antibiotic resistant infections:

1. The incidence of gonococcal and treponemal infections is on the increase, particularly in age groups younger than those previously affected.
2. The infections are being treated with readily available antibiotics.
3. Furthermore, these same individuals have had repeated antibiotic regimens for other infections.
4. The relative youth of these subjects makes it likely that more than one such infection will be acquired in a given lifetime.

To reiterate, then, the basic situations for bacterial resistance in gonorrhea and syphilis are operative now, namely rapid passage from human to human in the presence of appreciable antibiotic levels. Historically it appears likely that syphilis was once a malady of epidemic proportions. It is possible that in the scientifically sophisticated society we live in that man-made epidemic situations are evolving. The mere possibility of such an occurrence should lend added impetus to us to support every reasonable control measure in venereal disease program.

The laboratory can and does play a fundamental part in such control programs. Very good procedures are available for the detection of syphilis and these range from the use of chemically pure antigens as in the VDRL test, to the use of treponemal antigens as in the Reiter complement fixation procedures. The same situation unfortunately does not prevail in the detection of gonococci. Direct smears are not always available, particularly in the female, and furthermore, these do not detect subclinical or chronic infections. Cultural methods are cumbersome and complex; better procedures must be developed.

It is thus important for every physician's office to be the venereal disease detection center. It is his responsibility to report such infections promptly to prevent further spread. Along with public health control measures, man may yet win the race between antibiotic control of venereal infections and microbial acquired resistance to antibiotics. *Our best hope at present appears to lie in decreasing sharply the incidence of such infections.*

* * *

Fluorescent Antibody Methods

Compounds which emit light of one wavelength, when illuminated by light of a shorter wavelength, are fluorescent. Most fluorescent compounds that have been studied are excited by light of the ultraviolet region and emit light of the visible range. Fluorescent dyes are called fluorochromes. Fluorochromes emit light of specific wavelength; fluorescein, for example, emits yellow-green light, and rhodamine emits reddish-orange light. Fluorochromes may be linked to antibody globulins, the resultant compounds being called *labelled* or *tagged antibodies*. Such antibodies remain serologically active, although some slight changes in the properties of labelled proteins are manifest.

Immunofluorescent staining consists of allowing a labelled antibody to react with the specific antigen, and observing the reaction product under the fluorescence microscope. The latter consists of a standard microscope with a dark field condenser and ultraviolet light source. Immunofluorescent staining procedures may be used to detect specific antigens, or specific antibodies, or to localize these substances in tissue sections.

Many Uses

Immunofluorescent staining procedures have been used for the recognition of certain microorganisms, including measles, rabies and influenza viruses, beta hemolytic streptococci, hemophilus pertussis, conococci, Candida albicans, and Entamoeba histolytica. The method is also used to detect specific antibodies in patients' sera, including syphilitic antibodies. Antibodies prepared against human hormones, ACTH and insulin, for example, have been used to localize these hormones in tissue sections, and a labelled antibody to myosin has been used to localize this protein in muscle fibers.

(Continued on Page 238)

Suit-Consciousness Subject of Survey

(Vol. XXX, No. 9, *Medical Annuals of the District of Columbia*)

What effect has the increase in malpractice suits in recent years had on medical practice? In seeking an answer to this question, Boston University Law-Medicine Research Institute early in the year made a survey of 10 per cent of the general practitioners and specialists in Massachusetts. Upon its completion, Professor William J. Curran, Director of the Institute, announced the results.

On the favorable side were the following benefits:

"1. The physician's interest has been increased in keeping better medical records and in putting more things in writing. For example, he is now more careful to obtain consent forms for surgery and autopsy; he gives his patients written prescriptions instead of phoning the druggist; he maintains more detailed histories and treatment records, especially on unco-operative patients.

"2. The physician is also beginning to realize that well-informed, satisfied patients seldom sue. They are therefore, taking more time to fully explain to the patient and his family the nature of the illness and the method of treatment he intends to use."

The "unfortunate" findings in the study, as reported in the March, 1961, number of *The Doctor and The Law*, a monthly medio-legal newsletter, were:

"1. Many physicians reported that they are increasingly reluctant to accept certain types of patients because of their propensity to institute malpractice suits, for example those who have previously sued doctors, those who shop around from one doctor to another, alcoholics and bad credit risks.

"2. Many general practitioners are more careful in limiting the scope of their practice, such as elimination of minor surgery, refusal to handle therapeutic x-ray or fracture cases, avoidance of using some of the newer drugs and technics.

"3. The physicians surveyed reported an increased use of x-ray and laboratory analyses and an increase in the use of consultants, especially in those cases in which the end result is apt to be poor."

Commenting on these findings, *The New England Journal of Medicine* editorialized:

"It is apparent that the lawsuit menace has favored conservatism, caution and care in medical practice as well as adding to its cost. It is unfortunate that any benefits derived should have had to come through a medium so sordid."



MICHIGAN DEPARTMENT OF HEALTH

ALBERT E. HEUSTIS M.D., State Health Commissioner

The Reporting of Certain Positive Laboratory Tests Done in Conjunction With the Establishment of a Diagnosis of a Venereal Disease

Michigan Department of Health records indicate that venereal diseases are again increasing as a public health problem. This is true even though we know that all individuals with venereal disease are not being reported as required by Act 272, Public Acts of 1919.

The need for more adequate reporting still exists despite diligent efforts to acquaint the public and the medical professions with the problem. These efforts have included releases to the press, radio and television; presentations to medical groups and individual physicians, both in person and by letter; and the personal visitation to over 4,000 physicians in the state by representatives of state and local health departments to discuss the status of the venereal disease problem, to present a folder of pertinent information, and to share with the physician a copy of the publication, "Syphilis—Modern Diagnosis and Treatment."

It is the health department's responsibility to make sure that adequate efforts are expended to: (1) find persons with possible venereal disease; (2) see that a diagnosis is made as early as possible, and (3) ascertain that adequate treatment is both instigated and completed. These responsibilities are necessary from the standpoint of: (1) protection of the public against the spread of disease from person to person; and (2) protection of the public from the cost of the late manifestations of previously undiagnosed and/or inadequately treated syphilis.

Some states with a problem similar to ours have instigated a program of the reporting of positive laboratory tests with very rewarding results. These states include Connecticut, Kentucky, and Pennsylvania. In Pennsylvania, instigation of the reporting of positive laboratory tests was followed by: (1) a significant increase in the percentage of all reported syphilis being reported by private physicians; (2) a significant increase in reported primary and secondary syphilis; and (3) a dramatic increase in the ratio between the number of positive laboratory tests and the subsequent reported cases of syphilis by private practitioners (from one case reported per 78 positive tests before to one case reported per five positive tests after).

The Association of State and Territorial Health Officers, meeting in Conference with the Surgeon General in Washington, November 8-10, 1961, passed the following recommendation:

> "That state health departments implement existing authority, which requires that all laboratories (public, private, hospital, and blood bank) processing serologic tests for syphilis, report all serologic specimens by the name of the patient to health departments, or in the absence of existing laws or regulations, state health departments take whatever steps are necessary to bring about the enactment of laws or regulations which require such reporting."

The Surgeon General of the Public Health Service has established a Task Force on the Problem of Venereal Diseases to evaluate present efforts to control syphilis and to recommend "Principles and methods that will make it possible to establish a time table leading to the eradication of syphilis as a public health problem." Information from the Venereal Disease Branch of the Communicable Disease Center indicates that this task force has selected the reporting of positive tests for venereal disease by all public and private laboratories in all states as one of its recommendations.

In Michigan, acting under rules and regulations adopted a number of years ago, laboratories doing almost two-thirds of the total serological examinations performed in the state are already reporting positive findings. In this, no ethics have been violated. All diagnoses have been made by the physician in charge of the case, all follow-up of contacts has been conducted through or with the approval of the physician in charge of the case, and no complaints to date have as yet been received by any physician in charge of a case.

The results of this are very interesting. In 1960, delayed follow-up of positive laboratory reports received from laboratories that now report resulted in the diagnosis, bringing to treatment, and reporting of 1334 individuals with syphilis, and the returning to needed treatment of 305 additional individuals who had been previously diagnosed, not reported, and who

(Continued on Page 234)

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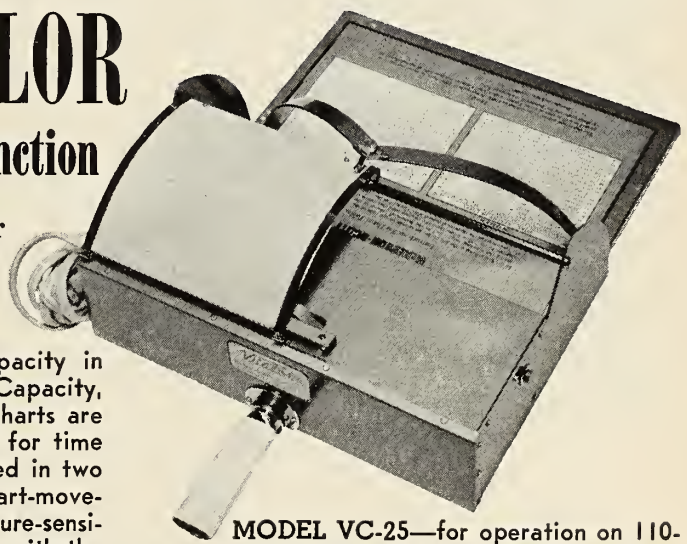
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Diagnosis of Venereal Disease

(Continued from Page 232)

had not completed the treatment advised by their physicians. If these ratios are applied to the tests done by laboratories which do not now report, we anticipate that 734 additional individuals would be brought to treatment and that 171 more individuals would be returned to treatment.

While it is our belief that the present venereal disease regulations give adequate protection to those who now share information on positive laboratory tests with us, the opinion rendered by a previous legal counsel of the Michigan State Medical Society has left doubts in the minds of many private physicians as to the validity of the existing regulations.

With our more recent concern caused by the increase of syphilis in general, the increase in the primary and secondary stages of the disease, and the increased proportion of all cases found in teenagers and young adults, the health department again reviewed its responsibility. It was found that Section 4 of Act 6 of the Public Acts of 1942 (second extra session) stated in part, that "The State Health Commissioner is hereby authorized to make such rules and regulations as he shall deem proper for the discovery and control of persons afflicted with venereal disease."

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Having this information, the department: (1) assessed the degree of voluntary cooperation to be expected, (2) endeavored to profit by past experiences and by past objections, and (3) came up with a proposal to amend the existing rules and regulations to make them more palatable, more effective, and more enforceable.

The proposed rules and regulations:

1. Name certain specific tests which are used as an aid in the diagnosis of venereal disease.

2. Require the reporting of the positive results of those tests by laboratory as positive tests only and with no inference, whatsoever, as to either the interpretation or the significance of the same.

3. Make provisions for the health department, in a confidential fashion, to contact the physician in charge of the case after a reasonable interval and ascertain from him his interpretation as to any significance of the reported positive laboratory examination.

4. Make provision that all reports of positive laboratory findings be treated in confidence by the health department in conformity with the intent of state venereal disease statutes.

If, in the follow-up of reported positive laboratory tests, it were found that the physician in charge of the case believed a diagnosis of venereal disease was indicated, he would be asked for a report and he would be offered the services of health department personnel and trained investigators to find and investigate the alleged sources of the disease and the alleged persons to whom the disease may have been spread.

It is believed that the proposed regulations are in the public interest, that they will assist the conscientious physician in his work, and that they do this within the framework of the codes of ethics of private practicing physicians.

It is further believed that by working together, the doctor in charge of the case, the laboratory, and the health department can in many cases do more to prevent the spread of venereal disease by achieving earlier diagnoses, the completion of indicated adequate treatment, and giving a better opportunity for proper investigation of source and distribution contacts.

Retires from AMA

William W. Bauer, M.D., retired January 1, as director of the American Medical Association's Department of Health Education. He will continue to serve as a consultant to the AMA Division on Environmental Health.

Fred V. Hein, Ph.D., assistant director of the AMA Department of Health Education since 1946, has been named as new department director.

Say you saw it in the Journal of the Michigan State Medical Society

Health Council Names Dean Scott, Others

Officers and members of the board of trustees of the Michigan Health Council for 1962 were elected at the organization's annual meeting held in Detroit.

William S. McNary, Detroit, executive vice president and general manager of Michigan Hospital Service, who had served as president-elect during the past year, assumed the presidency.

Gordon H. Scott, Dean of the College of Medicine, Wayne State University, was named president-elect.

Sidney E. Chapin, M.D., Dearborn, is the retiring president.

Hugh W. Brenneman, MSMS public relations counsel, was re-elected secretary and L. Gordon Goodrich, Detroit, Michigan Medical Service, was re-elected treasurer.

Harry B. Zemmer, M.D., Lapeer, continues as president emeritus, and J. K. Altland, M.D., associate commissioner of the Michigan Department of Health, as medical advisor.

Re-elected for three-year terms on the board were Doctor Altland, Mr. Brenneman, Mr. Goodrich, Mr. McNary, Earl Ingram Carr, M.D., Lansing; Edwin L. Harmon, M.D., Detroit; and F. D. Ostrander, D.D.S., Ann Arbor.

Richard U. Byerrum, East Lansing, was elected to the board to fill the unexpired term of Paul A. Miller, who is leaving the state to become president of West Virginia University.

U-M Medical School Plans Future Growth

Four major construction projects are part of the plans revealed recently for the development of the University of Michigan Medical Center over the next 10 to 15 years.

University Vice President W. K. Pierpont has announced that the development plans include: (1) the second unit of the Medical Science building in order to complete transfer of the medical school from the central campus into the Medical Center; (2) addition of a 200-bed Children's Hospital and continued renovation of University Hospital for improved patient care; (3) addition of the Hearing Research Institute through Kresge Foundation support; (4) further expansion of medical research facilities through private and federal grants.

Among the other plans is one to reorientate the Medical Center so that a main entrance will be developed on the north side. Future construction and parking facilities will be confined within the present area through careful development of a higher density use pattern than is characteristic of other campus sectors.

"Building development within the Medical Center amounted to almost $29,000,000 in building investment during the post-war period," Dr. Pierpont said. "Through combined support from state appropriation, private gifts and federal grants, proposed development for the next 10 to 15 years will amount to substantially the same dollar amount."



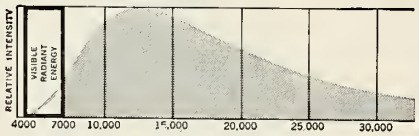


New ZOALITE 500 LAMP features long-range, retractable extension arm.

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New Insurance Commissioner

Governor Swainson recently appointed Sherwood Colburn, Oak Park insurance man, as State Insurance Commissioner to succeed Frank Blackford, resigned.

Gives Weller Lecture

James W. Kernohan, M.D., Minneapolis, presented the 6th annual Carl V. Weller Lecture to the Michigan Pathological Society recently in Ann Arbor. Dr. Kernohan spoke on "Sarcomas of the Brain." The Carl V. Weller Lecture was first established in 1956 to honor the retiring chairman of the department of pathology of the School of Medicine of the University of Michigan. The late Dr. Weller was instrumental in the organization of the Michigan Pathological Society and served as its first president in 1932-33.

Medical Draft

Michigan has been requested to supply 150 young doctors of medicine before April 1, to satisfy the growing needs of the expanded military service. They will be physicians who were born after June 30, 1934.

Interns in general will be allowed to continue their internship but the rest of doctors in hospitals are included in the list. Doctors of medicine will be called whether they are fathers or not.

Doctors can volunteer and apply for a two-year commission under the draft regulations; most will go in as captains for two years and get an extra $100 a month in addition to their base pay. If they do not enlist but are inducted they miss this extra $100 per month.

CPHA Begins New Project

A new medical "electronic dictionary" will be developed by a research team at the Commission on Professional and Hospital Activities (CPHA) in Ann Arbor. The project will be financed by a two-year grant of $147,000 by the National Institute of Health. The purpose of the research is to find ways of applying high-speed electronics to the complexities of classifying diseases and treatments.

Unique AMEF Project

About 60 of the doctors on the Community Hospital active staff in Battle Creek published a joint Christmas Card and sent these cards to their friends, explaining that this group card represented a savings of $600 which has been sent to the American Medical Educational Fund.



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Editorial Comment

England's Departing Doctors

Chicago Tribune, October 26, 1961

The number of doctors in Britain is gradually rising, under that country's national health plan, but neither as fast as needed nor in the manner planned. British trained doctors are departing to greener pastures at the rate of 600 a year, and are being replaced by what are said to be less adequately trained foreign doctors at the rate of about 1,000 a year.

The ministry of health reports that of 9,541 junior doctors employed in British hospitals only 5,913 are British trained. Most of the others are from India and Pakistan.

The British trained doctors are moving to Canada or the United States, where they can practice without government control, or to Australia or New Zealand, where, in spite of social security health plans, there is more opportunity in private practice for a well-trained doctor than there is in England. The beginning pay for a full time doctor in British hospitals is only $1,360 a year. The greater a young doctor's ability, the greater is the incentive for him to look for something better.

But the $1,306 and the security of government work are enough to attract young doctors from Asia, few of whom can hope to make that in their own countries. Whatever their individual ability and the quality of their training, these doctors are not as familiar with the problems of British patients as are the graduates of British medical colleges.

Even without this going and coming of doctors, Britain's medical schools are not turning out as many new doctors, in relation to the country's population, as our own. And even our 7,000 medical school graduates a year are 2,000 fewer than we are told we need. Many American hospitals are glad to get foreign trained doctors as interns—but they are finding it necessary to examine their training and qualifications with special care.

Britain can ill afford to lose 600 promising young doctors a year, and with its hospital staffs already overworked it can't afford to be very choosy about whom it accepts to replace them.

In medicine, as in most things, you get what you pay for. If the government undertakes to provide health care to everyone, free or at discount rates, and at the same time support a large administrative bureaucracy and live within its income, it is to be expected that the best doctors will depart (or the best potential doctors will not go into medicine at all), and that the quality of service will suffer.

The Golden Opportunity

The Bulletin, Oakland County Medical Society, January, 1962

The politician has long known the value of personal contact in winning the majority of voters to his cause. The endless hand-shaking, baby-kissing, small-talking routines have won many an election in the face of seemingly insurmountable offs.

The ability of an individual to convince the voter that he is sincerely interested in his problems, and wishes to do all in his power to solve them, spells the difference between the winner and the also-ran.

The medical profession is engaged in a struggle today which may well be won, or lost, in the doctor's office and the hospitals. The majority of people in the country have ample contact with their physician each year; and the opportunity for explaining the position of the doctor in relation to socialization of medicine, in a subtle, tasteful, but definite, way is obvious. The thousands of missed opportunities which occur every day in our offices and hospitals may well make the difference between victory and defeat.

The close relationship which exists between doctor and patient renders the opinion of the doctor worthy of serious consideration in the eyes of the patient.

The golden opportunity for expressing one's opinion and explaining the reasons upon which the opinions are based might change the views of not only the patient but also of his family and friends, as well.

The hucksters of paternalism are becoming increasingly vocal and effective in their attempts to sway the public to take the plunge to socialism. Only by our own day-by-day personal contact with our patients can we hope to ward off this threat to our improving medical practice.—DALE R. DREW, M.D.

Pathology Comment

(Continued from Page 230)

In tissue culture studies, immunofluorescence technics have been used to show the relationships between different cell types; e.g., labelled antibodies to platelets have been shown to stain megakaryocytes specifically. Autoimmune diseases such as lupus erythematosus have been studied extensively by this technique.

A recent review[1] of immunofluorescent staining methods lists 160 references and should be consulted for further information.

1. Beutner, E. H.: Immunofluorescent staining. The fluorescent antibody method. Bact. Rev., 25:49-72, 1961.

Election News
In the Spotlight

NEW PRESIDENT—Rosser L. Mainwaring, M.D., Dearborn, has been chosen president-elect of the Michigan Pathological Society for 1963. Secretary-treasurer will be James G. Wolter, M.D., Detroit. President of the organization for 1962 is D. L. Hinerman, M.D., Ann Arbor.

* * *

RE-ELECTED—Lynn A. Ferguson, M.D., Ann Arbor, recently was re-elected secretary-general of the American College of Gastroenterology at its annual meeting in Cleveland. A highlight of the meeting was the presentation of 25-year service certificates to 23 doctors of the nation. There were no names from Michigan among the 23.

* * *

BROCHURE OFFERED—A publication, entitled "The Planning and Operation of an Intensive Care Unit," by the W. K. Kellogg Foundation, is available to interested doctors. The foundation has distributed 15,000 copies to the various health personnel in the United States and Canada. Requests will be filled gratis in reasonable quantities; write to W. K. Kellogg Foundation, 250 Champion Street, Battle Creek.

* * *

ON MISSOURI PANEL—Frank Bicknell, M.D., Detroit, participated in a recent seminar on pediatric urological problems at the University of Missouri School of Medicine.

* * *

MCF ELECTS—Rosser L. Mainwaring, M.D., Dearborn, was re-elected president of the Michigan Cancer Foundation in its annual election.

Donald Sweeny, Jr., M.D., Detroit, was named to the board's executive committee.

Re-elected to office were Oscar D. Stryker, M.D., St. Clair Shores, as a vice president and Lyndle R. Martin, M.D., Detroit, secretary.

* * *

SPEAKER IN OHIO—M. K. Newman, M.D., Detroit, presented a discussion entitled "Medico-legal Aspects of Neck Injuries" at the recent combined meeting of the Michigan and Ohio Academies of Physical Medicine and Rehabilitation at the Toledo Academy of Medicine.

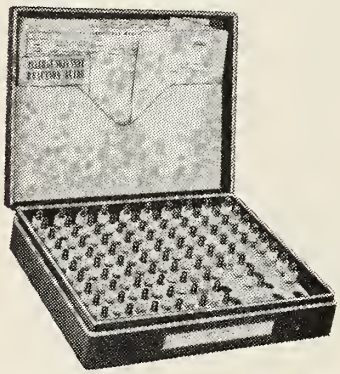


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MAYO PROGRAM—Staff members of the Mayo Clinic and the Mayo Foundation for Medical Education and Research, Rochester, Minn., will present a program April 2-3-4, of lectures and discussion in general medicine and surgery. The American Academy of General Practice and the College of General Practice of Canada have advised the Committee on Clinical Reviews that Catagory I credit may be obtained by members of the American Academy of General Practice or the College of General Practice of Canada attending.

* * *

FELLOWSHIPS—Six additional fellowships for residents in ophthalmology, to be awarded July 1, have been announced by the Guild of Prescription Opticians of America. Applications for these $1,800 fellowships must be received by May 15. Forms and covering information are available by writing to the Guild, 110 East 23rd Street, New York 10, N. Y.

* * *

SABIN VIRUS RELEASED—The licensing of Type II oral poliovirus vaccine (Sabin), to be distributed by Pfizer Laboratories, was announced by the U.S. Public Health Service. Type II Oral Vaccine will be supplied in a 10 dose preconstituted vial and in a 100 dose concentrate which requires dilution before use. As with Type I vaccine, Type II must be stored in the frozen state, requiring temperatures of —20 degree Centrigrade (—40 Fahrenheit) or below. Type II Oral Vaccine will be available for use in your practice within two weeks from your usual source of supply. Before immunizing with Type II vaccine, however, a minimum interval of 4 to 6 weeks should be allowed.

* * *

SERVES BIRMINGHAM—Toward the end of February, the fourth Hack Shoe store will open at 235 Pierce Street in Birmingham. This latest store of the 45-year-old Hack Shoe Company will serve men, women and children.

* * *

REPUBLISHED—"The Ship's Medicine Chest and First Aid at Sea" has been reprinted by popular demand by the Superintendent of Documents Government Printing Office, for $5.00.

* * *

EXAM SCHEDULED—The American Board of Obstetrics and Gynecology announces that the next scheduled examinations (Part II), oral and clinical, for all candidates will be conducted at the Edgewater Beach Hotel, Chicago, by the entire Board April 9 through 14. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination date. For further details write to Robert L. Faulkner, M.D., Secretary, 2105 Adelbert Road, Cleveland 6, Ohio.

* * *

CORRECTION—On the December 1961 cover, the labels for Community Hospital and Battle Creek Sanitarium were interchanged.

COMMUNICATIONS

Wilfrid Haughey, M.D., Editor
Journal, MSMS

Dear Doctor Haughey:

I would like to congratulate you and your Editorial Board on the editorial titled "Running Scared" which appeared in the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY for September of 1961.

It doesn't really seem necessary that the medical profession, with so many individual successes in the way of cures of the vast percentage of one's patients, should ever have to be on the defensive in presenting our case to the public. However, the national trend towards security and apathy, as far as public events are concerned, seems to occasionally even infect our fellow physicians. I would feel that this article should repeatedly be emphasized to all our councilors and spokesman for any segment of the medical profession, no matter how small.

Again, congratulations on the presentation of a positive rather than a negative philosophy.

Very sincerely yours,
WILLIAM T. DAVISON, M.D.

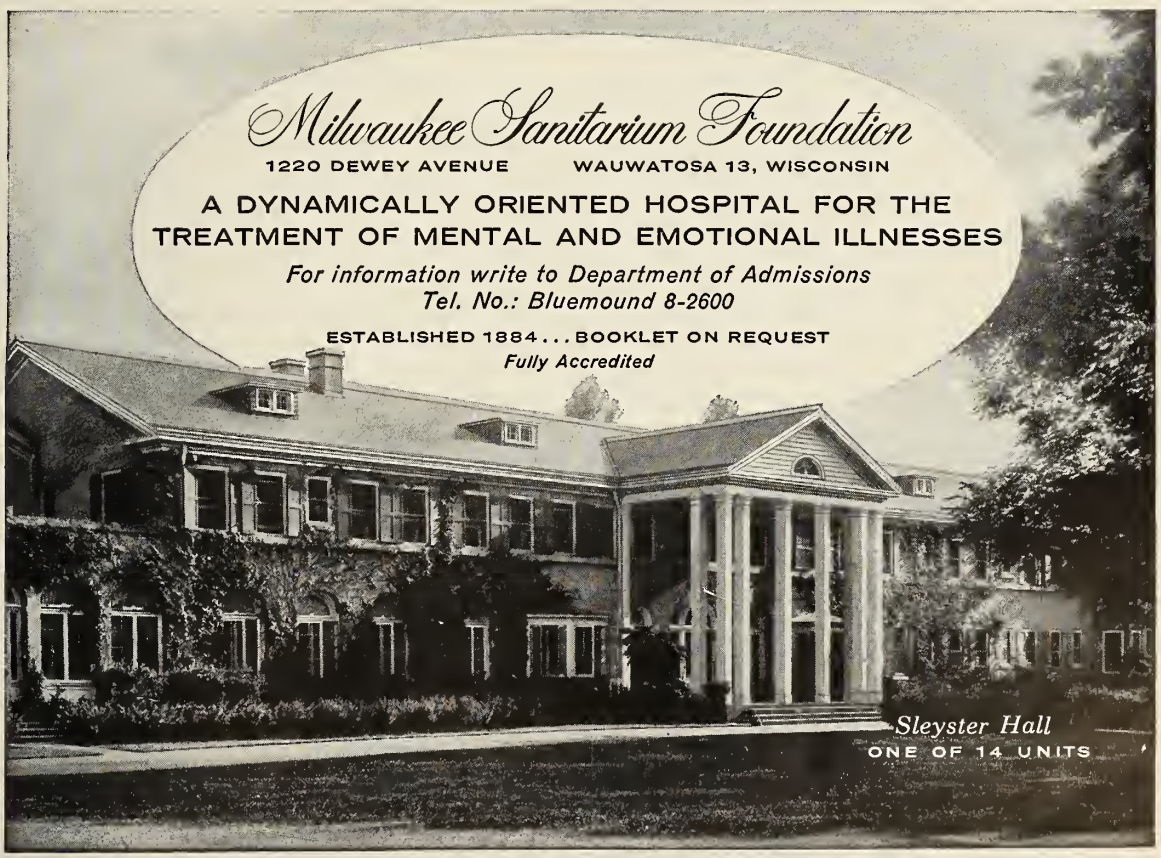
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IN MEMORIAM

DANIEL M. CLARKE, M.D., retired Hastings physician, died November 9, 1961, in Williamsport, Pennsylvania.

A former Barry County coroner, Doctor Clarke practiced in Hastings until his retirement about four years ago. He was a past president of the Barry County Medical Society, and a retired member of the Michigan State Medical Society.

CARLETON DEAN, M.D., sixty-six, Lansing, director of the Michigan Crippled Children Commission since 1941, died unexpectedly December 20, 1961.



CARLETON DEAN

A native of Brighton, Doctor Dean entered the University of Michigan in 1914, but left in 1917 to enlist in the Army. After serving through World War I, he continued his education and obtained his medical degree from the Detroit College of Medicine — now a part of Wayne State University—in 1924. From 1924 to 1930, Doctor Dean practiced medicine in Eaton Rapids. Then he became interested in public health through work with the Rockefeller Foundation. After serving for a short time as a district health officer under the Children's Fund of Michigan, he entered Johns Hopkins University, where he obtained a master of arts degree in public health.

In 1940, he became deputy state health commissioner with supervision over 63 counties, prior to assuming his post with Michigan Crippled Children Commission.

He was widely recognized as an authority on public health. He was a past president of the Michigan Public Health Association and a director of the Michigan Health Council.

Other memberships included the executive committees of the Michigan Epileptic League, Michigan Chapter of the United Cerebral Palsy Association, and Michigan Heart Association.

MERLE R. FRENCH, M.D., sixty-eight, former Kalamazoo County Health Department director, died December 13, 1961, in Palm Beach, Florida.

Doctor French headed the Kalamazoo County Health Department from 1952 until two years ago when he resigned because of ill health. His resignation climaxed a 39-year career in the public health field.

A 1920 graduate of the University of Iowa Medical School, Doctor French held public health positions in Iowa, New York and Milwaukee, Wisconsin, where he also had a private practice.

Before coming to Kalamazoo, he served as health director for Van Buren and Branch-Hillsdale counties. He was a past president of the Michigan Health Officers Association.

(Continued on Page 246)

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(Continued from Page 244)

WAYNE A. GINGRICH, M.D., sixty-one, Ironwood physician, died December 6, 1961.

A native of Reed City, Doctor Gingrich received his medical degree from Wayne State University College of Medicine. He interned at Detroit's Receiving Hospital and practiced medicine there until he entered the Army. He was a major in the medical corps in World War II. He also served in World War I.

He specialized in eye, ear, nose and throat and practiced in Ironwood since 1945.

ALLAN W. McDONALD, M.D., eighty-five, retired Detroit physician, died November 30, 1961.

Doctor McDonald, born in Ontario, was a 1902 graduate of what is now Wayne State University College of Medicine. He was associated for many years with Providence Hospital where he was chief of staff in 1935 and 1936. He retired from practice in 1946. He was a past president of the Wayne County Medical Society and a life member of the Wayne Medical School alumni and The Players.

OSCAR W. McKENNA, M.D., eight-nine, Flint physician since 1898, died early in December, 1961.

A graduate of the University College of Vermont Medical School in 1896, Doctor McKenna practiced in Vernon, Michigan, for two years, prior to coming to Flint. He was a past president of the Genesee County Medical Society and a life member of the Michigan State Medical Society.

JOHN M. MURPHY, M.D., fifty-five, Detroit cardiologist, died November 19, 1961.

Doctor Murphy was a graduate of Harvard University Medical School and interned at Harper Hospital, Detroit. He was on the staffs of Harper, Bon Secours, St. John Receiving and Jennings Hospitals.

He was a member of the American College of Physicians and Surgeons and the American Board of Internal Medicine. He served with the Army during World War II.

DANIEL J. O'BRIEN, M.D., seventy-eight, Lapeer physician for 53 years, died November 8, 1961.

Doctor O'Brien received his medical degree from Detroit College of Medicine in 1908 and began practice in Lapeer soon after. He was a past president of Lapeer County Medical Society and a life member of the Michigan State Medical Society. He served as mayor of Lapeer from 1933 through 1938.

HERBERT T. WHITE, M.D., eighty-one, Flint ophthalmologist, died December 12, 1961.

Doctor White was graduated from the University of Michigan Medical School in 1905 and began a 12-year period of private practice in New Lothrop. He returned to the University of Michigan in 1917 for a postgraduate course in ophthalmology and began practice in ophthalmology in Flint in 1919. In the early 1920's, he was in charge of the city's ophthalmology clinic.

Doctor White was a life member of the Michigan State Medical Society. Other memberships included the American Academy of Ophthalmology and Flint Academy of Surgery.

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JOHN GARDNER WEEKS, twenty-eight, a graduate of the University of Pennsylvania Medical School and a student in the radiology course at the University of Michigan, was killed in an automobile accident January 31, 1962, near Michigan City, Indiana. A native of Ohio, he had interned at University Hospital in Cleveland and was within five months of completing a three-year radiology course at Ann Arbor.

STANLEY C. WHITLOCK, M.D., fifty-seven, Lansing, assistant chief of the state conservation department game division and a nationally recognized expert on cancer detection, died November 18, 1961.

A native of Caro, Michigan, he joined the conservation department in 1936 as a biologist. Before that he taught at Iowa State College from 1929 to 1936. He received his B.S. and D.V.M. degrees from Michigan State University and M.A. and M.D. degrees from the University of Michigan.

In 1955, he was elevated to head the game research program and about a year later became assistant chief of the division.

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Tiny aluminum disks, each stamped with a 2-letter Braille abbreviation for any one of ten colors and sewn into a garment, are being used by blind persons to identify the color of clothing. A highspeed automatic stamping press produces the disks with a special set of dies. These tags are distributed without charge to blind persons on request by the American Federation for the Blind, 15 West Sixteenth Street, New York City.—*Modern Medicine*, Oct. 2, 1961.

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Michigan Authors

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The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review as expedient.

MEDICINE FOR NURSES. By M. Toohey, M.D., M.R.C.P., D.C.H., Physician, New End Hospital, London. With a Chapter on Psychological Medicine by Henry R. Rollin, M.D., D.P.M., Psychiatrist, Horton Hospital, Epsom, and New End Hospital, London. Fourth Edition. Edinburg and London: E. and S. Livingstone Ltd., 1959. Price $5.00.

THE COMPLEAT PEDIATRICIAN. Practical, Diagnostic, Therapeutic and Preventive Pediatrics. For the use of General Practitioners, Pediatricians, Interns, and Medical Students. Eighth revised edition. (Adaptation of the Title Page of The Compleat Angler by Izaak Walton, 1653.) By Wilburt C. Davison, M.A., D.Sc., M.D., James B. Duke Professor of Pediatrics, Duke University School of Medicine, and Pediatrician, Duke University Medical Center; Honorary Member, American Academy of General Practice; Member, American Pediatric Society; Fellow, American Academy of Pediatrics and American College of Physicians. Formerly, Acting Head of Department of Pediatrics, The Johns Hopkins University School of Medicine; Acting Pediatrician-in-Charge, the Johns Hopkins Hospital, and Member, American Board of Pediatrics and Division of Medical Sciences, National Research Council, and Jeana Davison Levinthal, B.A., M.D., Research Associate, Harvard Medical School. Durham, N. C.: Duke University Press, 1961. Price, $4.50 (by check); $4.75 on credit.

The new eighth edition of the Compleat Pediatrician is brought up to date and a lot of old, useless data removed. A new cover and table of contents add to the value of an already invaluable book.

R.S.

W. B. Saunders Company features the following recent books in their full page advertisement appearing elsewhere in this issue:

FONTANA and EDWARDS—CONGENITAL CARDIAC DISORDERS. A vital statistical study to aid you in a better understanding of malformations of the heart.

WILLIAMS—TEXTBOOK OF ENDOCRINOLOGY. A definitive source emphasizing the effects of endocrine changes on body metabolism.

1962 CURRENT THERAPY. Today's best treatments—ranging from external cardiac massage for cardiac arrest through current use of antibiotics in treating bacterial infections.

Booklet on Aging

A booklet, "Services Available to Michigan's Older Citizens," is now available from the Michigan Commission on Aging. The booklet describes the kinds of services that are available in many communities and indicates how they can be located. This directory is designed as a direct service to the senior citizens or to relatives and friends who may be trying to be of help to them. Copies are available to those who write to Michigan Commission on Aging, 404 Tussing Building, Lansing 7.

The publication lists the Michigan State Medical Society among the "Statewide Organizations Interested in Older People."

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YOUNG GP DESIRED in well-established general practice: Small town in northern Michigan, excellent residential district and schools; good hospital facilities. Guaranteed salary first year, leading to partnership for right person. Reply Box 1, Michigan State Medical Society, 120 W. Saginaw Street, East Lansing, Michigan.

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WANTED PHYSICIANS: Pediatrician, pathologist, and obgyn for association with established multi-specialty group in Detroit. $16,000-$20,000 first year with annual increases. Reply Box 5, 120 W. Saginaw Street, East Lansing, Michigan.

WANTED: Physician for Put-in-Bay, heart of Ohio's Lake Erie vacation area; Township owned office and residence, rent free; also subsidy. Port Clinton hospital nearby. 700 permanent residents; 5000 summer season. For further information, contact: F. Romer Stoiber, Township Clerk, Put-in-Bay, Ohio.

WANTED: Locum Tenens, 1-3 months, Resident or General Practitioner with Michigan license beginning March 1, 1962. $1100 monthly, rent-free use of suburban home, including utilities. Partnership available, if desired. Contact: J. Colligan, M.D., 113 N. Portage, Buchanan, Mich.

GENERAL PRACTICE PARTNERSHIP: Small group, located in thriving community and area in northeastern Colorado. Two doctors—one Michigan graduate—with clinic, including drugstore and dentist. Income guaranteed with partnership intended. Younger man preferred. Contact: Dr. Paul R. Hildebrand, Brush, Colorado.

EXPERIENCED MEDICAL ARTIST—Detroit area, desires work. Free lance or salary. Full or part time. BS from University of Michigan Graduate school of medical illustration, Massachusetts General Hospital, Boston. Surgical drawings, charts and graphs, teaching materials. All media. Large portfolio, references. VE 7-3128. Kathryn G. Murphy, 16145 Stansbury, Detroit 35, Michigan.

WANTED: Physician with experience in chest diseases. Full time position in modern, fully equipped TBC unit in progressive State Hospital situated in vacationland city on Grand Traverse Bay. Salary $12,235 to $14,469. Many fringe benefits. Contact M. Duane Sommerness, M.D., Medical Superintendent, State Hospital, Traverse City, Michigan.

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All applicants must possess or be eligible for a license to practice medicine in Michigan.
Salaries are dependent upon qualifications. For further information contact Mr. Gus Harrison, Director of Corrections, Stevens T. Mason Building, Lansing 26, Michigan.

the Journal MICHIGAN
STATE MEDICAL SOCIETY
Volume 61 Number 3
March, 1962

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THE COVER

The cover sketches of two overturned autos effectively illustrate why Michigan State Medical Society advocates the use of automobile safety belts to reduce death and injury.

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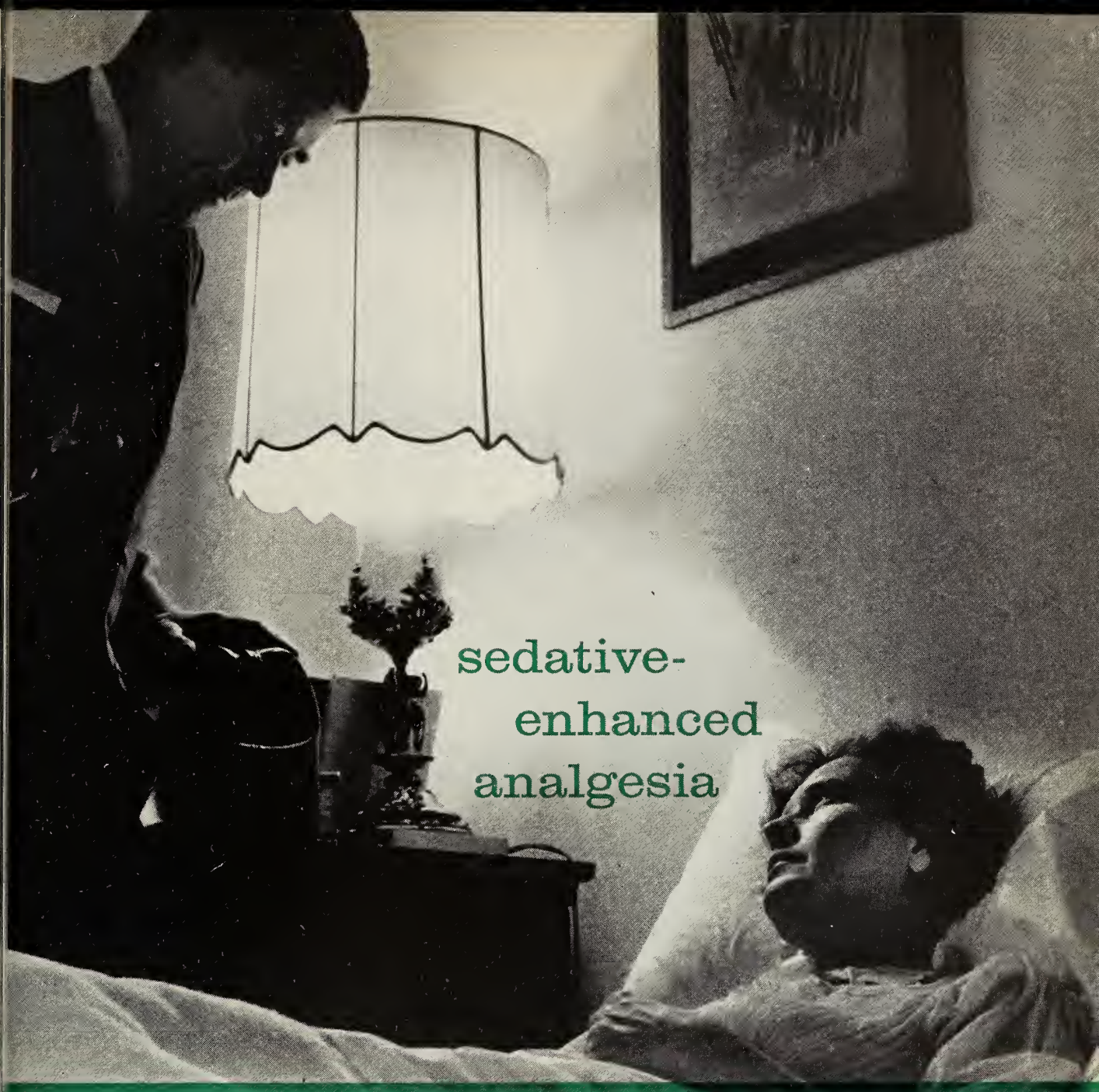
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President's Page

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Several decades ago, the doctors of the Michigan State Medical Society financed the original research and followed through with a program inaugurating one of the first major Blue Shield plans in America. A team of M.D.'s and associates had been sent to Europe to study the prepaid medical systems in operation there. This was followed by years of discussions and additional work to perfect a voluntary prepayment idea which would work in Michigan. The doctors were joined by folks interested in hospital administration.

A forward-thinking Michigan legislature passed the enabling act in 1938 to permit the establishment of Michigan Blue Shield and Michigan Blue Cross.

MSMS has six representatives on the Blue Cross Board appointed by our MSMS Council. The membership of Blue Shield and the seated M.S.M.S. House of Delegates annually each fall elect the Blue Shield Board, non-medical and medical members alike. While the Plans are actually separate and independent legally, they have cooperated whenever the public would be better served by the economies and more efficient operations effected.

Our special responsibility is the performance of Blue Shield in the area of medical care. Blue Shield is us—the medical profession.

Moreover, like our profession itself, Blue Shield's sole motivation is to help us better to serve our patients. Like us, Blue Shield seeks to help the whole community —not just the fortunate few who least need medical care or are best able to pay for it—or both.

Perhaps most important, Blue Shield seeks, as an ideal, to help us render our services at a predictable cost, particularly for our patients in the medium and lower income brackets. This is the true meaning of the service benefit commitment which most of us have accepted. Even in those areas where our colleagues have not made a formal commitment to render fully paid service, Blue Shield is seeking to provide schedules of payment that will be acceptable to us on this basis.

Blue Shield is a shield of comfort and security for our patients. And for us, it is something we have created to help us meet our community responsibilities. Blue Shield is a bridge between us and our patients—and a strong shield for the preservation of freedom in the practice of medicine.

Let us handle it with care.



First Aid for Con-Con Delegates

The Michigan State Medical Society and the Ingham County Medical Society are cooperating to provide a first aid service for the Michigan Constitutional Convention delegates.

A well-equipped first aid facility was set up "to make sure that medical care is available to them (delegates) while they are away from home attending the convention in Lansing," so said the society's spokesman.

A number of doctors of medicine from the downtown Lansing area are on call to provide medical care at the first aid room, doctor's office or hospital. There is a registered nurse on duty at all times con-con is in session. The first aid facility is provided at no cost to con-con.

Chosen for '62 Emphasis

The Public Relations Committee of the Michigan State Medical Society has selected six phases of the MSMS Presidents Program for special emphasis in 1962. These plans of the Committee have been approved by The MSMS Council.

The Committee recommended the advancement of all the parts of the Presidents Program with special attention to the following:

1. A campaign to establish full-time local public health units in all areas of Michigan.
2. An all-out campaign for immunization against polio, tetanus and diphtheria.
3. The holding of a well-publicized conference inaugurating new and improved programs to handle medical emergencies of both an individual and statewide variety.
4. The institution, in co-operation with the health insurance industry, of a campaign to sell paid-up-at-65 medical and hospital insurance, including an effort to make the Michigan Medical Aid to the Aged work to the greatest benefit of all recipients thereof.
5. The making of an environmental study including the effect of fluoridation on teeth, sanitation on dysentery and other infectious diseases, and the need for home-care programs.
6. The promotion of a physical conditioning and fitness program—not overlooking emphasis against obesity—in co-operation with, among others, the schools of Michigan.

Upper Peninsula Medical Society Meeting Set for June 15-17

The annual meeting of the Upper Peninsula Medical Society will be held June 15, 16, 17 at the Gateway Hotel, in Land O' Lakes, Wisconsin.

All members of the Michigan State Medical Society are cordially invited to attend this scientific meeting.

In addition to the medical program, the UP doctors and their wives are arranging a number of social and sports activities.

Further information regarding reservations and program may be obtained by writing Paul R. Lieberthal, M.D., Suffolk Street, Ironwood.

Why the AMA?

"Why do we need the AMA? Why not only a state medical association? Why not only a county association?"

These questions were posed by E. Vincent Askey, M.D., in his final report to the AMA house of delegates as president at the annual meeting in New York City. He answered his own questions:

"Without organization, there can be no profession but only individual effort. This effort may be good or bad depending on individual abilities. But the effect only moves within the radius of that individual's influence.

"Our country needs coordinated effort to increase those things which are good and disseminate them as a profession. The welfare of the people also demands that those things which are bad must be opposed or eliminated.

"In this tradition, the AMA exists. It concerns itself only with those things which affect all doctors of the United States. It has nothing at all to do with problems that are purely local in nature. The AMA cannot, does not and should not interfere in purely local affairs."

Annual County Secretaries-Public Relations Seminar

A total registration of 119 was recorded at the County Secretaries-Public Relations Seminar held February 3, 1962. Those present included:

County Secretaries: Harold Kessler, M.D. (Alpena-Alcona-Presque Isle), Wilbur R. Birk, M.D. (Barry), H. T. Knobloch, M.D. (Bay-Arenac-Iosco), G. D. Maniaci, M.D. (Delta-Schoolcraft), John C. Benson, M.D. (Genesee), A. F. Dundon, M.D. (Grand Traverse-Leelanau-Benzie), B. H. Smookler, M.D. (Ingham), T. R. Leider, M.D. (Ionia-Montcalm), R. E. Medlar, M.D. (Jackson), Robert H. Hume, M.D. (Kalamazoo), Kornelius Van Goor, M.D. (Kent), Xenaphon Skufis, M.D. (Lenawee), Charles M. Ebner, M.D. (Macomb), J. M. Carter, M.D. (Marquette-Alger), Robert C. Olson, M.D. (Menominee), R. A. Frary, M.D. (Monroe), H. C. Tellman, M.D. (Muskegon), T. R. Kirk, M.D. (Northern Michigan), Armin T. Franke, M.D. (St. Clair), H. T. Forsyth, M.D. (Shiawassee), Robert S. Ideson II, M.D. (Washtenaw), Dean W. Seger, M.D. (Wexford-Missaukee).

County Presidents: Herbert S. Wedel, M.D. (Barry), Richard E. Lininger, M.D. (Berrien), George W. Bennett, M.D. (Clinton), Hardie B. Elliott, M.D. (Genesee), F. C. Swartz, M.D. (Ingham), Robert D. Warnke, M.D. (Kalamazoo), Kenneth E. Fellows, M.D. (Kent), Arnold O. Abraham, M.D. (Lenawee), Bernard J. Goldman, M.D. (Macomb), F. C. Sabin, M.D. (Marquette-Alger), John W. Freud, M.D. (Monroe), Edward H. Heneveld, M.D. (Muskegon), James A. Read, M.D. (Oakland), Frank L. Groat, M.D. (Ottawa), Robert S. Bailey, M.D. (St. Clair), Scott T. Harris, M.D. (Washtenaw), Don W. McLean, M.D. (Wayne).

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Editors: W. G. Gamble, Jr., M.D. (Bay-Arenac-Iosco), Donald R. Bryant, M.D. (Genesee), Doyle E. Wilson, M.D. (Kalamazoo), William J. Hornbeck, M.D. (Muskegon), Clarence I. Owen, M.D. (Wayne).

Public Relations Chairmen: A. B. Mitchell, M.D. (Allegan), D. Bonta Hiscoe, M.D. (Ingham), L. E. Grate, M.D. (Northern Michigan), E. H. Place, M.D. (Washtenaw).

MSMS Council: D. Bruce Wiley, M.D. (Macomb), Wilfrid Haughey, M.D. (Calhoun), K. H. Johnson, M.D. (Ingham), Wm. A. Scott, M.D. (Kalamazoo), John J. Coury, M.D. (St. Clair), Orlen J. Johnson, M.D. (Bay-Arenac-Iosco), D. Roemer Smith, M.D. (Dickinson-Iron).

Executive Secretaries: Mrs. Ruth I. Garnsey (Genesee), Mrs. Mary A. Agar (Kalamazoo), William McClimans (Kent), Mary G. Haines (Oakland), Alberta Kazarian (Oakland), Mrs. Janet Mitchell (Wayne), Mrs. Marguerite Vergosen.

Woman's Auxiliary Representatives: Mrs. R. H. Himmelberger (Ingham), Mrs. Clarence I. Owen (Wayne).

Michigan State Medical Assistants Society Representatives: Miss Cecile D. Rutan (Jackson), Miss Catherine La Pres (Muskegon), Mrs. Violet Howorth (Berrien), Mrs. Reta V. Stahl (Calhoun).

Michigan Medical Service Representatives: Mr. John Verbiest (Detroit), John M. Wellman, M.D. (Ingham).

Michigan Hospital Services Representatives: Mr. Robert M. Hanson (Detroit), Mr. Peter E. Klein (Wayne).

Public Relations Committee (MSMS): J. L. Leach, M.D. (Genesee), G. E. Millard, M.D. (Wayne), E. C. Mosier, M.D. (Genesee), J. C. Rawling, M.D. (Genesee), Sydney Scher, M.D. (Macomb), C. K. Stroup, M.D. (Genesee).

Committee on Legal Affairs: H. J. Meier, M.D. (Branch).

Participants on Program: David Beardslee (Oakland), Hugh Brenneman (East Lansing), William DeMougeot (Denton, Texas), Otto K. Engelke, M.D. (Ann Arbor), E. M. Fugate, M.D. (Muskegon), C. T. Hardwick, Ph.D. (Detroit), E. H. Heneveld, M.D. (Muskegon), A. H. Hirschfeld, M.D. (Detroit), R. S. Ideson, M.D. (Ann Arbor), David Kahn, M.D. (Lansing), C. I. Owen, M.D. (Detroit), William R. Ramsey (Chicago), Noel Sanborn (New York City), R. Wallace Teed, M.D. (Ann Arbor), H. Clay Tellman, M.D. (Muskegon), R. D. Warnke, M.D. (Kalamazoo), John P. Williams, M.D. (Pontiac).

Guests: John D. Cantwell, Jr., M.D. (St. Clair), Albert E. Heustis, M.D. (Ingham), L. E. Holly II, M.D. (Muskegon), Thomas C. Lindsay (Lansing), G. Thomas McKean (Wayne), Don Marquis (Provident L & A Ins. Co.), John T. O'Hair (Provident L & A Ins. Co.), Mrs. Robert C. Olson (Menominee County Auxiliary), Alice E. Palmer, M.D. (Wayne), Ethon L. Stone, M.D. (Jackson), Ben Stratton (Lansing), Elmer E. White, Michigan Press (East Lansing), Otto Beck, M.D. (Oakland).

RECORD OF ATTENDANCE BY SOCIETY AND OFFICES REPRESENTED

February 3, 1962

X Present
O Absent
N None

County or District Medical Society	*Pres.*	*Pres. Elect*	*Secy.*	*County P.R. Chairmen*	*Editor*	*MSMS Councilor*	*MSMS P.R. Committee*	*Exec. Secy.*
Allegan	O	O	O	X	O	O	O	O
Alpena-Alcona-Presque Isle	O	O	X	N	N	O	O	N
Barry	X	N	X	O	N	O	O	N
Bay-Arenac-Iosco	O	X	X	X	X	X	X	N
Berrien	X	O	O	O	O	O	N	N
Branch	O	O	O	N	N	O	N	N
Calhoun	O	O	O	N	N	X	O	N
Cass	O	N	O	N	N	O	N	N
Chippewa-Mackinac	O	O	O	N	N	O	N	N
Clinton	X	O	O	O	N	O	O	N
Delta-Schoolcraft	O	O	X	N	N	O	N	N
Dickinson-Iron	O	O	O	O	O	X	N	N
Eaton	O	O	O	N	N	O	N	N
Genesee	X	X	X	O	X	O	XXXX	X
Gogebic	O	O	O	O	N	O	N	N
Grand Traverse-Leelanau-Benzie	O	O	X	O	O	O	N	N
Gratiot-Isabella-Clare	O	O	O	N	N	O	O	N
Hillsdale	O	O	O	O	N	O	N	N
Houghton-Baraga-Keweenaw	O	O	O	N	N	O	O	N
Huron	O	O	O	N	N	O	O	N
Ingham	X	X	X	X	X	X	O	O
Ionia-Montcalm	O	X	X	N	N	O	N	N
Jackson	O	O	X	O	N	O	N	N
Kalamazoo	X	O	X	O	X	X	O	X
Kent	X	X	X	O	O	O	O	X
Lapeer	O	N	O	N	O	O	N	N
Lenawee	X	O	X	N	O	O	N	N
Livingston	O	O	O	O	N	O	O	N
Luce	O	O	O	O	N	O	N	N
Macomb	X	X	X	X	N	X	X	N
Manistee	O	O	O	O	O	O	N	N
Marquette-Alger	X	O	X	X	N	O	O	N
Mason	O	N	O	N	N	O	N	N
Menominee	O	O	X	O	N	O	N	N
Mecosta-Osceola	O	O	O	O	N	O	N	N
Midland	O	O	O	O	N	O	N	N
Monroe	X	X	X	X	N	O	O	N
Muskegon	X	X	X	X	X	O	O	O
Newaygo	O	O	O	O	N	O	N	N
North Central	O	O	O	N	N	O	N	N
North Michigan	O	O	X	X	N	O	N	N
Oakland	X	X	O	O	O	O	O	X
Oceana	O	N	O	N	N	O	N	N
Ontonagon	O	O	O	O	O	O	O	N
Ottawa	X	O	O	N	N	O	N	N
Saginaw	O	O	O	O	O	O	O	O
St. Clair	X	X	X	O	O	X	O	N
St. Joseph	O	O	O	O	N	O	N	N
Sanilac	O	O	O	O	N	O	N	N
Shiawasee	O	O	X	N	N	O	O	N
Tuscola	O	O	O	N	N	O	N	N
Van Buren	O	O	O	O	N	O	N	N
Washtenaw	X	X	X	X	O	O	X	O
Wayne	X	O	O	N	O	O	X	XX
Wexford-Missaukee	O	O	X	O	N	O	N	N

Other organizations represented at the Seminar were: Woman's Auxiliary representatives, 2; Michigan State Medical Assistants Society representatives, 4; Michigan Medical Service representatives, 2; Michigan Hospital Services representatives, 2; Committee on Legal Affairs, 1; Program participants, 17; guests, 13.



"All the world's a stage..
And one man in his time
plays many parts,
His acts being seven ages..."*

*As You Like It, Act II, Sc. 7

through all seven ages of man

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effective anxiety control with a wide margin of safety



in the "frantic forties"—For many patients in their "frantic forties," the pace never slackens—may even accelerate—while tensions multiply and physical resources dwindle. Out of this seedbed of stresses and anxieties grow much of the alcoholism, psychosomatic illness, and sympathetic overactivity of the middle years.

In each of these areas, VISTARIL is often effective alone or as an adjunct to other therapy. For example, in his series of 67 patients, King[1] found that 62 showed remission of anxiety, tension, nervousness and insomnia, as well as alleviation of symptoms associated with various functional and psychophysiological disturbances. He concludes that VISTARIL is well suited for use in the practice of internal medicine.

In the emergent situation, VISTARIL, administered parenterally, is a valuable aid to the physician in managing patients who escape psychic conflict via alcohol. According to Weiner and Bockman,[2] who obtained beneficial results in 81% of 175 patients studied, hydroxyzine (VISTARIL) may well be considered a tranquilizer of choice in the management of the acutely agitated alcoholic.

1. King, J. C.: Int. Rec. Med. 172:669, 1959. 2. Weiner, L. J., and Bockman, A. A.: Sci. Exhibit, A.M.A., Ann. Meet., New York City, June 26-30, 1961.

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VISTARIL, hydroxyzine pamoate (oral) and hydroxyzine hydrochloride (parenteral solution), is a calming agent unrelated chemically to phenothiazine, reserpine, and meprobamate.

VISTARIL acts rapidly in the symptomatic treatment of a variety of neuroses and other emotional disturbances manifested by anxiety, apprehension, or fear—whether occurring alone or complicating a physical illness. The versatility of VISTARIL in clinical indications is matched by wide patient range and a complete complement of dosage forms. The calmative effect of VISTARIL does not usually impair discrimination. No toxicity has been reported with the use of VISTARIL at the recommended dosage, and it has a remarkable record of freedom from adverse reactions.

INDICATIONS: VISTARIL is effective in premenstrual tension, the menopausal syndrome, tension headaches, alcoholic agitation, dentistry, and as an adjunct to psychotherapy. It is recommended for the management of anxiety associated with organic disturbances, such as digestive disorders, asthma, and dermatoses. Pediatric behavior problems and the emotional illnesses of senility are also effectively treated with VISTARIL.

ADMINISTRATION AND DOSAGE: Dosage varies with the state and response of each patient, rather than with weight, and should be individualized for optimum results. The usual adult oral dose ranges from 25 mg. t.i.d. to 100 mg. q.i.d. Usual children's oral dose: under 6 years, 50 mg. daily in divided doses; over 6 years, 50-100 mg. daily in divided doses.

Parenteral dosage for adult psychiatric and emotional emergencies, including acute alcoholism: I.M.—50-100 mg. Stat., and q.4-6h., p.r.n. I.V.—50 mg. Stat., maintain with 25-50 mg. I.V. q.4-6h., p.r.n.

SIDE EFFECTS: Drowsiness may occur in some patients; if so, it is usually transitory, disappearing within a few days of continued therapy or upon reduction of dosage. Dryness of mouth may be encountered at higher doses.

PRECAUTIONS: Drowsiness may occur in some patients. The potentiating action of hydroxyzine should be taken into account when the drug is used in conjunction with central nervous system depressants. Do not exceed 1 cc. per minute I.V. Do not give over 100 mg. per dose I.V. Parenteral therapy is usually for 24-48 hours, except when, in the judgment of the physician, longer-term therapy by this route is desirable.

SUPPLIED: VISTARIL *Parenteral Solution* (hydroxyzine hydrochloride)—10 cc. vials, 25 mg. per cc. and 50 mg. per cc.; 2 cc. ampules, 50 mg. per cc. VISTARIL *Capsules* (hydroxyzine pamoate)—25, 50, and 100 mg. VISTARIL *Oral Suspension* (hydroxyzine pamoate)—25 mg. per 5 cc. teaspoonful.

More detailed professional information available on request.

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The Jolt Came Quickly

Battle Creek Enquirer and News, Jan. 11, 1962

The administration's high hopes for passage of a medical care plan for the aging this year have suffered a setback even before Congress begins consideration of such a measure. Chairman Mills of the House Ways and Means Committee, who conferred recently with President Kennedy on the administration program, is reported to be still strongly opposed to the bill. Mr. Mills voted against such legislation two years ago and last year, his committee did not even report out the measure.

Mr. Mills' position indicates that Mr. Kennedy made little, or no, headway on the medical care proposal—an administration "must" bill—and, for that matter, might not have done too well in enlisting the Arkansas Democrat's support on other measures.

Admittedly, some form of medical care is needed by those elderly people who cannot now afford private insurance plans. It also must be recognized that the problem is increasing each year, as the population over age 65 grows. At this moment, almost 10 per cent of the entire United States census is in this age bracket.

The very magnitude of the problem dictates that when a medical care plan is evolved, it be the soundest and most efficient that Congress can devise. The very fact that several proposals other than the administration's King-Anderson bill have been introduced proves that there has been much thought given to the matter and that no one plan has all the answers so far. Only last fall, Battle Creek's Rep. August E. Johansen introduced a bill in the House patterned after a medical care plan drafted by two local physicians, Doctors George Kelleher and George Slagle. This bill would provide a tax credit, to be deducted from income tax owed, for medical insurance.

Mr. Mills may be opposed to the administration's proposal simply because as a conservative Southern Democrat he resists further encroachment of the federal government in the welfare field. Or, he may feel that the entire subject needs more exploration and study. We trust that the latter reason is the correct one.

In any event, it is to the best interest of the entire nation that Congress approaches the matter with caution. Unless properly conceived and provided with controls necessary to prevent abuses a medical care program could become a monster that would wreck the national economy.

We hope that the administration will soon recognize this danger and will put aside its politically motivated haste for a more deliberate and sound course on medical care for the aging.

Say you saw it in the Journal of the Michigan State Medical Society



Notice any change, Mrs. T.?" *"Well, Doctor... When I realized that I looked forward to teaching... really enjoyed being with the children again... I knew things were better..."* "Ever feel light-headed?" *"No... not at all. I feel perfectly normal now.!"*

this could be your "anxiety patient" on

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the treatment of mild to moderate tension and anxiety, the normalizing effect of EPIDONE leaves the patient emotionally able, mentally alert. Adult dose: One 0 mg. tablet, four times daily. Supplied: alf-scored tablets, 400 mg., bottle of 50.

quest complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

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MEDICAL SOCIO-ECONOMIC COMMITTEES APPOINTED BY COUNTY MEDICAL SOCIETIES AND SPECIALTY GROUPS AS OF FEBRUARY 7, 1962

Genesee County Medical Society
George E. Rieth, M.D., *Chairman*, Flint
John C. Rawling, M.D., Flint
Nicholas Delzingro, M.D., Davison
H. H. Hiscock, M.D., Flint
J. W. Hallitt, M.D., Flint
O. F. Kline, Jr., M.D., Flint
Henry Mendrek, M.D., Flint
Theodore Finkelstein, M.D., Flint
Bernard Dickstein, M.D., Flint
P. E. Schroeder, M.D., Flint

Jackson County Medical Society
J. W. Rice, M.D., Jackson
R. V. Taylor, M.D., Jackson
J. P. Bentley, M.D., Jackson
E. W. Adams, M.D., Jackson

Kalamazoo Academy of Medicine
F. C. Ryan, M.D., *Chairman*, Kalamazoo
F. J. Margolis, M.D., Kalamazoo
J. C. Breneman, M.D., Galesburg
Donald G. May, M.D., Kalamazoo
Wm. Marshall, M.D., Kalamazoo
P. S. Rutherford, M.D., Kalamazoo

Macomb County Medical Society
C. Matthews, Jr., M.D., *Chairman*, Mt. Clemens
Victor Curatolo, M.D., Mt. Clemens
G. W. Morris, M.D., Mt. Clemens
D. A. Paris, M.D., Roseville
J. W. Kingsley, Jr., M.D., Roseville
W. E. Rush, M.D., St. Clair Shores

Monroe County Medical Society
S. N. Kelso, Jr., M.D., *Chairman*, Monroe
R. G. Streicher, M.D., Monroe
W. A. Meier, M.D., Monroe
J. H. McMillin, M.D., Monroe

Newaygo County Medical Society
B. L. Masters, M.D., *Chairman*, Fremont
N. L. Pedelty, M.D., Newaygo

Washtenaw County Medical Society
Earl Wolfman, M.D., *Chairman*, Ann Arbor
J. S. DeTar, M.D., Milan
D. A. Campbell, M.D., Ann Arbor
T. G. Kabza, M.D., Ann Arbor
L. D. Elliott, M.D., Ypsilanti
W. W. Hammond, Jr., M.D., Plymouth

Detroit Ophthalmological Society
A. D. Ruedemann, Jr., M.D., *Chairman*, Detroit
F. B. Fralick, M.D., Ann Arbor
A. D. Ruedemann, Sr., M.D., Detroit
H. A. Dunlap, M.D., Detroit
R. J. Crossen, M.D., Detroit
P. L. Cusick, M.D., Detroit
H. F. Falls, M.D., Ann Arbor
J. L. Frey, M.D., Detroit

Michigan Allergy Society
Jack Rom, M.D., *Chairman*, Detroit
Louis Beresh, M.D., Detroit
Marshall MacDonald, M.D., Kalamazoo
S. J. Levin, M.D., Detroit
Henry Siegel, M.D., Detroit

Michigan Pathological Society
D. H. Kaump, M.D., *Chairman*, Ann Arbor
J. H. Ahronheim, M.D., Jackson
R. E. Olsen, M.D., Pontiac
S. E. Gould, M.D., Eloise
V. G. Brekke, M.D., Highland Park
L. W. Gardner, M.D., Detroit
Gerald Fine, M.D., Detroit
A. R. Climie, M.D., Detroit

Michigan Society of Neurology and Psychiatry
H. A. Raskin, M.D., *Chairman*, Detroit
W. H. Kelly, M.D., Lansing

MICHIGAN MEDICAL MEETINGS AND CLINIC DAYS

April 10-11-12—American Industrial Health Conference, at Pick-Congress Hotel, Chicago.

April 11—Western Michigan Trauma Meeting, Muskegon.

May 2—Wayne State University Clinic Day and Alumni Reunion, Detroit.

May 10-11-12—Student AMA, Mayflower Hotel, Washington, D. C.

May 17-18—MSMS Maternal and Perinatal Mortality Workshop, Gull Lake Conference Center, near Battle Creek.

June 15-16-17—Upper Peninsula Medical Society Meeting, The Gateway, Land O'Lakes, Wisconsin.

July 26-27—Coller-Penberthy Clinic at Traverse City.

September 26-28—MSMS Annual Session, Detroit.

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Panalba* product information

Supplied: Capsules, each containing Panmycin* Phosphate (tetracycline phosphate complex), equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin,* as novobiocin sodium, in bottles of 16 and 100.

Usual Adult Dosage: 1 or 2 capsules three or four times a day.

Side Effects: Panmycin Phosphate is well tolerated clinically and has a very low order of toxicity comparable to that of the other tetracyclines. Side reactions are infrequent and consist principally of mild nausea and abdominal cramps.

Leukopenia has occurred occasionally in patients receiving novobiocin. Rarely, other blood dyscrasias including anemia, pancytopenia, agranulocytosis and thrombocytopenia have been reported. In a recent report it was observed that three times as many newborn infants receiving novobiocin developed jaundice as control infants. For this reason, administration of novobiocin to newborn and young infants is not recommended, unless indication is extremely urgent because of serious infections not susceptible to other antibacterial agents.

The development of jaundice has also been reported in older individuals receiving Albamycin. Serious liver damage has developed in a few patients, which was more likely related to the underlying disease than to therapy with novobiocin. Although reports such as the above are rare, discontinuance of novobiocin is indicated if jaundice develops. If continued therapy appears essential because of a serious infection due to microorganisms resistant to other antibacterial agents, liver function tests and blood studies should be performed frequently, and therapy with novobiocin stopped if necessary.

In a certain few patients treated with this agent, a yellow pigment has been found in the plasma. The nature of this pigment has not been defined. There is evidence that it may be a metabolic by-product of novobiocin, since it has been reported to be extractable from the plasma (pH 7 to 8.1) with chloroform while bilirubin is not. These properties have been employed to differentiate the yellow pigment due to the metabolic by-product of novobiocin and bilirubin. However, recent reports indicate that this method of differentiation may be unreliable.

Urticaria and maculopapular dermatitis have been reported in a significant percentage of patients treated with Albamycin. Upon discontinuance of the drug, these skin reactions rapidly disappeared.

Warning: Since Albamycin possesses a significant index of sensitization, appropriate precautions should be taken in administering the drug. If allergic reactions develop during treatment and are not readily controlled by antihistaminic agents, use of the product should be discontinued.

Total and differential blood cell counts should be made routinely during the administration of Albamycin. If new infections appear during therapy, appropriate measures should be taken; constant observation of the patient is essential. If a yellow pigment appears in the plasma, administration of the drug should be continued only in urgent cases, and the patient's condition closely followed by frequent liver function tests. In case of the development of liver dysfunction, therapy with this agent should be stopped.

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Do We Care Enough?

Bulletin Oakland County Medical Society

November, 1961

The distressing course of events which threaten the abandonment of traditional private medical practice in our country should prompt us to engage in some careful self-appraisals.

When sweeping changes in social structures occur, there are usually basic vital underlying reasons for the upheaval. If this is true, then where have we, as a professional group, so failed in the performance of our duties as to justify the present attack upon our traditional medical system?

Have we *earned* the respect of our fellow Americans, or have we simply demanded it?

Have we acted with responsibility and good will as members of our various communities?

Do we make an attempt to achieve rapport with *all* strata of society?

Do we actively attend the various meetings which our medical societies hold to discuss and decide upon future policies and actions?

Is our reaction to criticism one of open-mindedness and objectivity rather than anger, cynicism and rationalization?

Do we place the welfare of each and every patient above our own comfort and convenience?

Do we use enough of our precious spare time to increase our knowledge and proficiency?

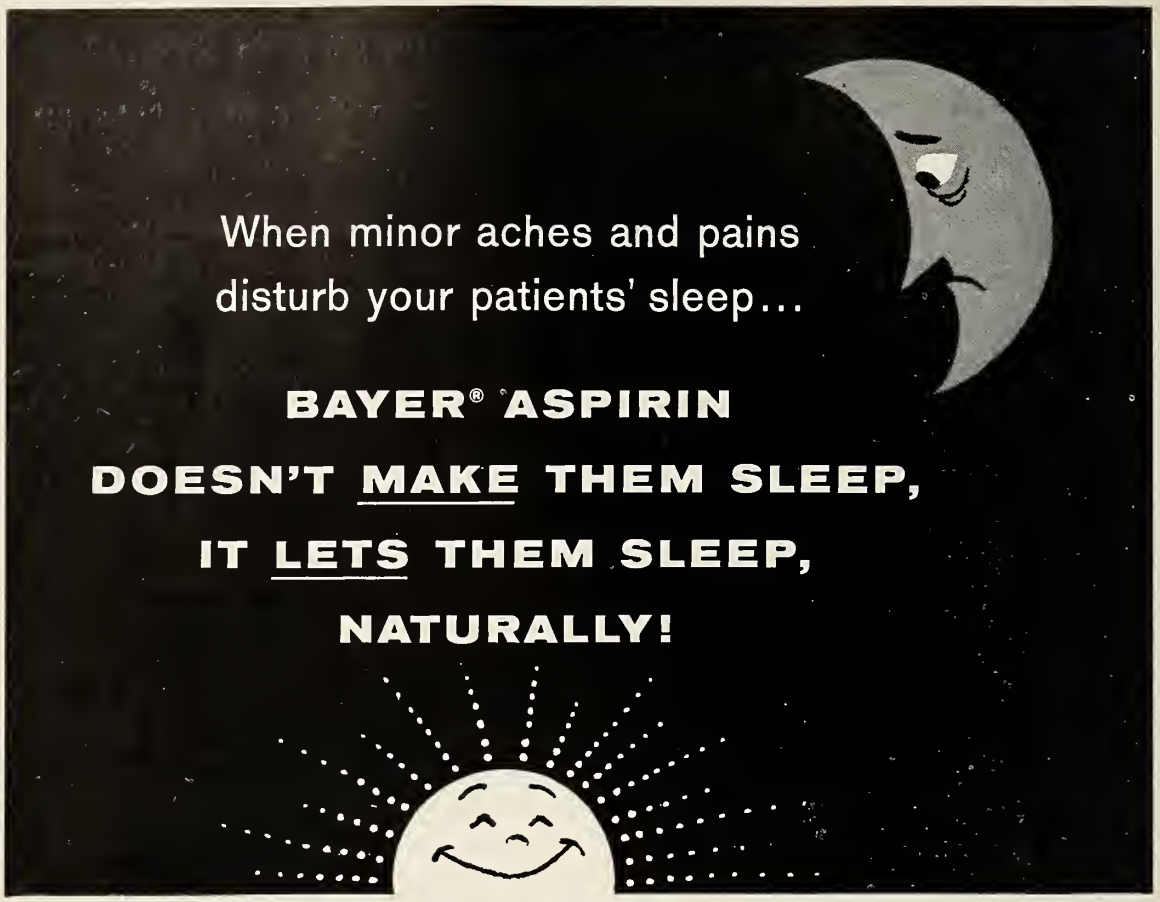
If we could honestly answer affirmatively to these, and many more penetrating questions, then the American people would not be considering socialization of medicine.

The fact is that we have been so engrossed in our own small, private worlds, that we have allowed ourselves to be trapped by them. The day is so filled with details and habits that we fail to communicate with each other and the outside world.

Unless we begin to put some thought and effort into our plans for the future of private medicine, we will be engulfed by the wave of socialistic thinking which places material security above all else, and which will condemn us to lives of boredom and mediocrity and will destroy the soul of medicine.

DALE R. DREW, M.D.

Say you saw it in the Journal of the Michigan State Medical Society



AND WITH BAYER ASPIRIN,
THERE'S NO
"SEDATIVE HANGOVER."

There are, of course, a great many instances of sleeplessness in which the patient should be directed to take a sedative to induce sleep.

But there are also many instances in which sleeplessness is caused by nothing more serious than minor aches and pains which can easily be relieved by one or two tablets of Bayer Aspirin. With physical discomforts gone, sleep comes naturally.

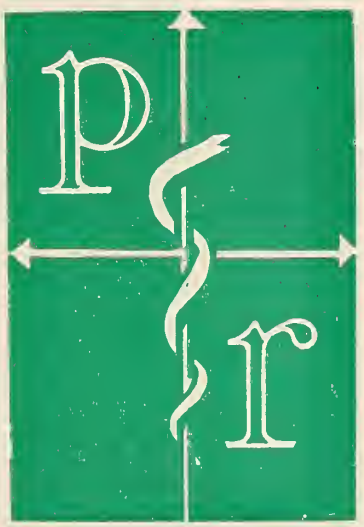
And when Bayer Aspirin is used as a sleeping aid, patients never suffer the "sedative hangover" which so often follows an induced sleep.

So remember, when minor aches and pains disturb your patients' sleep, Bayer Aspirin doesn't make them sleep; it lets them sleep, naturally, with no "sedative hangover."



Say you saw it in the Journal of the Michigan State Medical Society

Urges Doctors Use Best Arguments Against HR 4222



"Many of the arguments used by the medical profession in opposing compulsory health insurance are logically weak," according to Professor William DeMougeot, North Texas State University debating coach, speaking at the MSMS County Secretaries-Public Relations Seminar at East Lansing on February 3, 1962.

Professor DeMougeot cautioned against the use of emotional instead of logical arguments, and against making common errors in "argumentation."

A good argument, he says, is logically strong (stands up to both evidence and reasoning) and is effective against intelligent opposition. On the other hand, Professor DeMougeot said purely emotional arguments are only effective against uninformed opposition—or where debate is not likely to arise.

Dr. DeMougeot strongly urged the presentation of logically valid and therefore stronger arguments. Example: "socialized medicine would be compulsory for all, regardless of need." People resent compulsion, he says, and the argument is undeniably true—the system would be compulsory for all.

Another example: "voluntary insurance can do the job." Argue that voluntary insurance, while it has not yet solved the problem, is well on the way to doing so, says Professor DeMougeot. The growth of such insurance has been phenomenal, he points out, and it is sound to argue in terms of what can be done if voluntary insurance is given a chance.

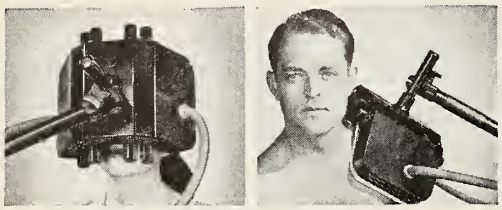
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PROFESSOR DE MOUGEOT also urges the use of such arguments as: "the healthy will be paying for the care of the ill." He also suggests as a strong argument: "it is silly to adopt a massive program for the whole country to avoid embarrassment of a small percentage who don't like to apply for welfare care." Dr. DeMougeot suggests asking the question "Why do we need to adopt a national system for this particular need? Why not a national program to provide autos, housing, etc.?"

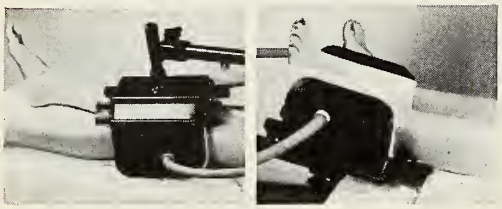
The contention that "HR 4222 is a step toward Socialism" was classified by the speaker as a "scare" argument. HR 4222 is Socialistic all right, he maintains, but one must be able to prove that it is bad for other reasons as well.

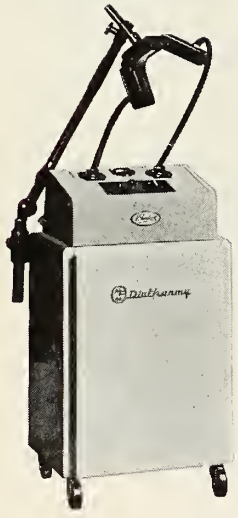
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AS ANOTHER WEAK EMOTIONAL EXAMPLE, he cites the flat statement that "patients and doctors will lose freedom." This, he says, can only lead to long and involved arguments with those who claim that this isn't the case in foreign systems. Dr. DeMougeot states that the point that "HR 4222 doesn't guarantee that the medical profession will control medical matters" is a much stronger point than is "loss of freedom."



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As a third example, the claim that "the quality of medical care will deteriorate" can invoke complicated counter-claims from students of socialized medicine in other countries, he says. Professor DeMougeot suggests instead pointing out that "HR 4222 would inevitably lead to unnecessary calls, arbitrary demands on doctors, and time-consuming paper work"—a well documented point.

Other arguments which he says can be rather easily confused by opponents include: "socialized medicine will be expensive", "raised Social Security taxes will be an additional burden on each American", and "socialized medicine has failed wherever it has been attempted."

Kalamazoo Study Proceeds

Kalamazoo Academy of Medicine is sponsoring a survey of the medical facilities and care in Kalamazoo. The study is financed by a Kalamazoo Foundation grant of $20,000. The study is now in progress, executed by the Public Services Research Institute of Stamford, Connecticut.

Contingent on the grant from the Kalamazoo Foundation, four lay members were added to three representatives from the Academy Committee as the executive committee of the Kalamazoo Medical Services and Facilities Survey Committee. The committee as specified by the Kalamazoo Foundation consists of Raymond Hightower, head of the Sociology Department of Kalamazoo College; Paul Horton, acting head of the Sociology Department of Western Michigan University; Ben Graham, director of the Bureau of Social Aid; and John Reid, director of the Family Service Center; in addition to Doctors Frederick Margolis, Robert Warnke, and W. Kaye Locklin. By action of this executive committee, Prof. Hightower was elected permanent chairman and Dr. Locklin, secretary. This committee has been acting closely with the representatives of the Public Services Research Institute represented by Herbert Jacobs, Robert Schreiber and William Abbott developing the final basic outline for investigation of the medical services and facilities in Kalamazoo.

A sponsoring committee of representative citizens of the community was listed for wider dissemination of the objectives of the study to the community.

"Soon the mechanics of the survey will have been completed and the collation of the information and the conclusions to be drawn will be well under way," reports Dr. Locklin.

MSMS annually provides thousands of medical facts to thousands of people in hundreds of meetings.

Say you saw it in the Journal of the Michigan State Medical Society

The Intractable Plantar Wart

Reed O. Dingman, M.D., F.A.C.S.
William C. Grabb, M.D.
Ann Arbor, Michigan

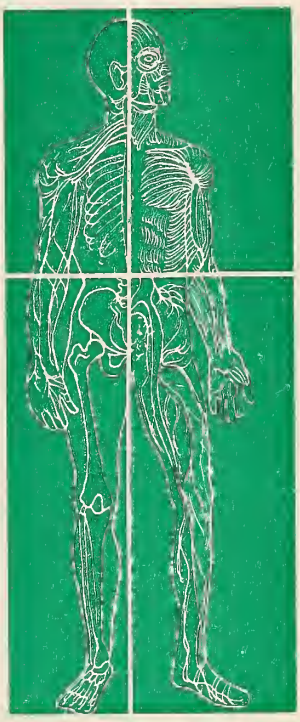
THE PLANTAR WART located on a weight-bearing area, complicated by injudicious or unsuccessful treatment, may be highly incapacitating, extremely painful and psychically disturbing. This lesion may be the cause of great expense due to loss of work and to the cost of treatment by surgeons, orthopedists, radiologists, dermatologists and chiropodists, who use carbon dioxide, escharotics, x-ray, radium, surgical excision, electrocautery, procaine injections and numerous other drugs. Painful walking with the foot in an abnormal position may result in orthopedic problems in other joints of the lower extremity and back.

Verruca plantaris is a relatively benign lesion in over 90 per cent of cases. The lesions may respond favorably to escharotic agents, operative excision, radiation therapy or sometimes to simple padding of the shoes.

The advanced cases which appear for treatment by the surgeon present as an exquisitely painful ulcer overlying one of the metatarsal heads with a surrounding zone of scar or callous, marked inflammatory reaction, infection and, in some, evidence of irradiation dermatitis and necrosis. In most instances, the ulcer extends through the fascia to the flexor tendon sheaths (Fig. 1). The lesions vary in size from 1 to 3 cm.

Some observers feel that plantar warts are due entirely to a virus infection. It is interesting to note, however, that in the advanced cases without exception, there is a mechanical defect of the foot. This consists of collapse of the transverse metatarsal arch with luxation of a metatarsal head producing a pressure point subject to constant trauma.

Many patients with advanced lesions have lived a life of pain and discomfort for a period of many months and, in some cases, years. They are anxious and willing to undergo any type of procedure that offers some possibility of relief. The treatment is obviously surgical. Inasmuch as most of these lesions are infected, operation should be deferred until infection and inflammation can be reduced to a minimum. This can be accomplished with frequent saline soaks, wet dressings and elevation of the foot. Preparation of the wound may require two or three weeks in severe cases.



Presented at the Ninth Annual Meeting of the Michigan Chapter of the American College of Surgeons, Detroit, March, 1961.

From the Department of Surgery, School of Medicine, University of Michigan, Ann Arbor, Michigan, and Department of Plastic Surgery, St. Joseph Mercy Hospital, Ann Arbor, Michigan.

The treatment should consist of: (1) adequate excision of the ulcer and surrounding callous, scar and damaged skin, (2) osteotomy of bony prominences producing plantar pressure points, and (3) adequate resurfacing with skin capable of withstanding pressures incident to function.



Fig. 1. (A) Deep ulcer overlying head of 2nd metatarsal. Note wide zone of surrounding callous and scar. (B) Postoperative view—six months—Full use of foot without symptoms. Due to contracture, a shallow cleft has developed at the edge of the flap.

Small lesions sometimes can be managed by conservative excision of the callous or ulcer, partial excision of the prominent metatarsal head by means of rongeur and closure of the defect with local flaps from the immediate vicinity of the defect.

In the very large lesion with exposed tendons and joints, it may be necessary to resort to a cross leg pedicle flap for adequate skin closure. These flaps generally are not satisfactory for weight-bearing surfaces. The underlying fat permits the skin to move from side to side as weight is placed upon the foot and painful callouses form about the margins or in the center of the flap.

In several instances, we have successfully treated advanced lesions by wide excision of the lesion, disarticulation of the underlying involved metatarsal phalangeal joint, excision of the prominent portion of the metatarsal head, filleting of the toe with removal of the phalanges and covering the defect with the skin of the filleted toe. In this manner, it is possible to satisfy the surgical principles of excision of the lesion, removal of pressure points and closure of the defect with adequate weight-bearing skin. The skin flap obtained from filleting a toe is adequate to cover large defects on the plantar surface. The flap carries an adequate blood supply and an undisturbed nerve supply for immediate protective sensation (Fig. 2).

For this operation, a tourniquet is employed and a wide excision of scar and callous is performed down to normal plantar fascia or tendon. The excision is carried along the volar midline of the involved toe. The joint is exposed, the flexor tendon is cut and permitted to retract, the capsule of the metatarsal phalangeal joint is opened and the dissection is carried to the extensor tendons which are cut and permitted to retract. The phalanges, along with the cut distal ends of the flexor and extensor tendons and the nail, are removed. Care is taken to avoid damage to the blood vessels or digital nerves of the toe. The prominent lower portion of the metatarsal head is excised and the distal articular cartilage is removed. After removal of the tourniquet, large bleeders are clamped and tied and the flap of the filleted toe is rotated to the volar surface of the foot where it is adjusted carefully to the size of the soft tissue defect. The flap should be accurately fitted and carefully approximated with dermalon sutures. A light pressure dressing is applied.

Postoperatively, the patient is kept with the foot elevated for three or four days and is then started on progressive crutch walking. Weight-bearing can be started in eight to ten days and in a matter of approximately three weeks the patient should be able to resume all usual activities.

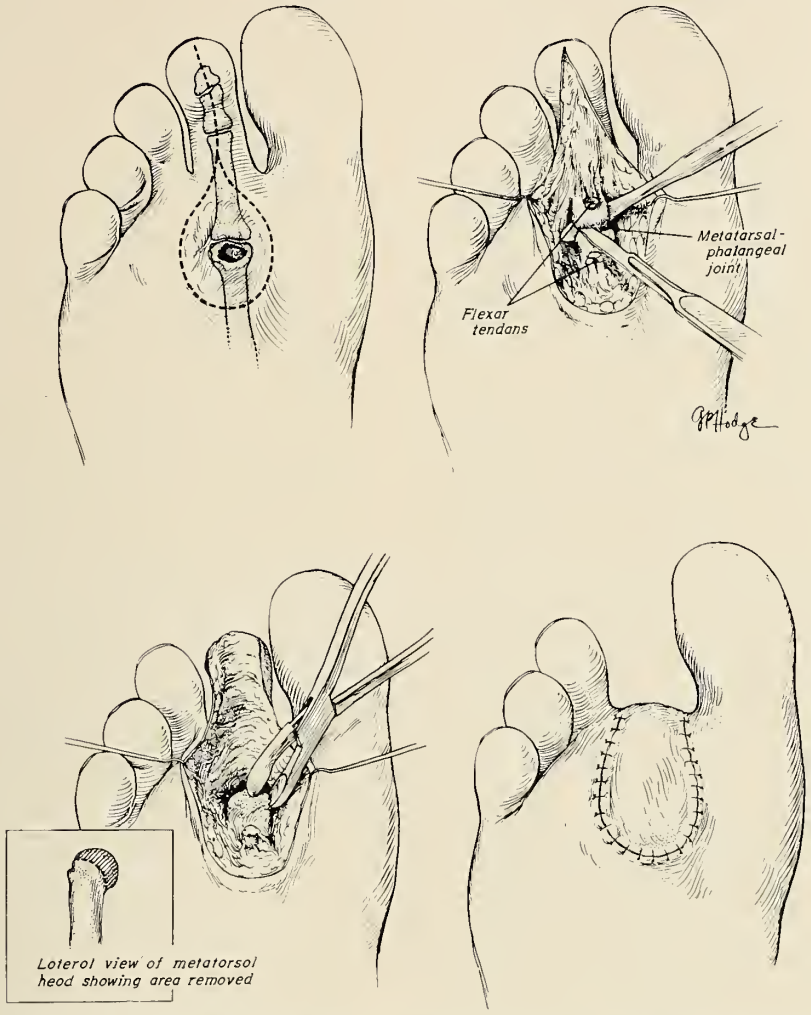


Fig. 2. (A) Outline of incision for excision of ulcer and filleting of toe. (B) Cutting of tendons and disarticulation of toe. (C) Removal of articular cartilage from metatarsus. (D) Flap tailored and sutured in place.

Conclusions

The intractable plantar wart is a surgical problem generally associated with a structural defect of the foot. Rational treatment should provide (a) elimination of the diseased skin and soft tissues, (b) removal of the underlying bony prominence and (c) adequate coverage of the defect with soft tissue capable of withstanding weight-bearing pressures.

A satisfactory weight-bearing flap coverage for the anterior plantar defect may be obtained from a filleted adjacent toe. A toe flap is desirable because of its excellent undisturbed blood and protective nerve supply.

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Early Management of the Patient With Multiple Injuries

Robert L. Kerry, M.D.
W. W. Glas, M.D.
Eloise, Michigan

EVERY PHYSICIAN, regardless of specialty, will be called upon to evaluate and treat the injured. This discussion is intended to help organize the physician's approach to evaluating these people, whether it be in the emergency room of a hospital or at the scene of an accident. The management of the injured patient is of interest because so much depends on personal examination and clinical judgment.

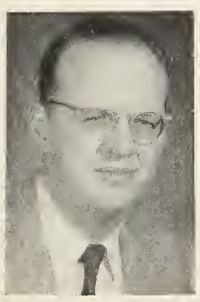
The initial means of evaluating the injured or unconscious patient is by observation. One can quickly see whether the patient is having difficulty breathing, whether there is obvious evidence of hemorrhage, whether the patient is conscious and whether he is vomiting. He should also note whether there is any malposition of portions of the body.

This discussion is devoted to the evaluation and treatment of the seriously ill and often unconscious patient.

Following observation, a brief history of the severely injured patient will often greatly facilitate the subsequent treatment.

If the patient is severely injured, all the patient's clothes should be removed to permit complete evaluation with care to avoid all unnecessary movement.

Everyone has heard of the four W's for the evaluation of a febrile postoperative patient. Similarly, there is a list of six systems which should quickly come to mind in evaluating the seriously ill. The first four systems are composed of one or more tubes and the treatment or evaluation of each should immediately call to mind the tube which most easily facilitates the evaluation and treatment of the patient. In order of importance in evaluation they are:



Author

W. W. GLAS, M.D.

1. Respiratory System—a tracheostomy tube or endotracheal tube
2. Circulatory System—an intravenous drip
3. Digestive System—the naso-gastric tube
4. Urogenital System—a catheter
5. Nervous System
6. Skin, Muscle and Bones

Respiratory System

The respiratory and the circulatory systems are the most emergent and life threatening to the patient.

An adequate airway should be the first and immediate concern of the examing physician. If the patient is cyanotic, gasping for breath, or has obvious extensive facial injuries of the head or neck, consideration should be made for inserting an endotracheal tube or performing a tracheostomy. An endotracheal tube, if available, is the fastest and most efficient method of treating patients with respiratory difficulties due to obstruction in the upper passages. It is obviously only for immediate aid and should be replaced with a tracheostomy when the time permits.

Rib fractures present another problem. A direct pressure dressing may be used to treat a small flail chest and an open sucking chest wound. In contrast, an extensive flail chest involving the whole chest, half of the chest or even a portion of one side may require stabilization of the ribs to permit adequate ventilation. This can be accomplished by grasping the ribs within a towel clip and holding them in their normal position. After the patient's condition permits, an upright posterior-anterior and lateral of the chest should be included in the routine work-up of any seriously injured patient.

Circulatory System

Evaluation and treatment of the circulatory system means first the control of hemorrhage. Direct pressure is the fastest and often the most effective hemostatic agent available and should be the first consideration in the control of hemorrhage. The imme-

From the Department of Surgery, Wayne County General Hospital, Eloise, Michigan.

diate treatment of the defect in the circulatory system is by intravenous fluids. If there is any question of blood loss or shock, an intravenous drip should be started with an 18-gauge needle; at the same time, one should draw blood for a type and cross match, hematocrit and any other blood test that may be indicated. If the hemorrhage has been excessive or the patient is in extreme shock, multiple teams should combine on two, three or four intravenous injections using as large a needle as available and incising the skin at the known sites of veins.

In the treatment of hemorrhagic or hypovolemic shock, intravenous fluids should be initiated as soon as possible, keeping the patient flat or elevating the feet to produce a slight Trendelenburg position. When intravenous fluids are needed, it has been our policy to use Dextran® if fluids are needed immediately, otherwise it is better to wait and use fresh whole blood which is the preferred fluid. It is very rare that 0 negative blood is used without benefit of a type and cross match. If there is question of digestive system disease or possible shock, we recommend starting 5 per cent dextrose in water or saline, depending on the diagnosis.

Vasopressor drugs such as levophed, neosynephrine and ephedrine should all be avoided in the cases of hemorrhagic shock. Dextran should be used in these patients and replaced with fresh blood as soon as available. Frequently saline is used in place of Dextran. The types of shock and the etiology of each are as follows:

1. Hemorrhagic shock—blood loss
2. Neurogenic shock—fainting, blows to solar plexus, spinal anesthetic
3. Electrolyte shock—electrolyte deficiency
4. Traumatic shock—severe fractures, crush injuries—due to tissue injury
5. Septicemic shock—infection in circulatory system
6. Cardiogenic shock—myocardial infarct

Digestive System

The following four systems do not usually require such emergent evaluation and treatment but may be just as deadly.

The upper gastrointestinal system may be evaluated by another tube, the nasogastric tube, which is often of value in the diagnosis of disease as well as in its treatment. Careful examination should be made keeping in mind the esophagus within the chest and examination of the abdomen by evaluation of pain, bowel sounds, rebound tenderness and peritoneal aspiration if indicated. We have found that peritoneal aspiration is one of the best ways of diagnosing and evaluating intra-abdominal disease.[1] Although a negative aspiration may mean nothing, a positive tap may identify serous, sanguineous, purulent, mucoid or bile stained material as well as bacteria, pH and amylase levels of that fluid. Repeated peritoneal tap should be carried out when there is suspicion of intra-abdominal disease despite the fact that earlier tests were negative.

Any penetrating wound of the abdomen whether it be from a bullet wound, a stab injury or similar injury automatically requires operation. The more difficult injuries to evaluate are those occurring secondary to blunt trauma which may produce early signs and symptoms or may present delayed indications for operation. It is important to consider the possibility of injury to the retroperitoneal structures such as the duodenum, pancreas and extraperitoneal rectum. A "high index of suspicion" must be held in all abdominal injuries because the signs and symptoms may be minimal. This alone may be an indication for operation.

The evaluation of intra-abdominal disease should include a KUB or flat plate and upright or lateral decubitus to inspect for pneumoperitoneum, air fluid levels, foreign bodies and obscured landmarks such as the kidney or psoas shadow.

Urogenital System

Every seriously injured patient should have a urinalysis even if it is necessary to insert a catheter. If the injury is severe and there is suspected injury to the urinary system, a catheter should be left indwelling so that continued observation may be made. Blood in the urine, either gross or microscopic, deserves intravenous pyelography and immediate evaluation and treatment by an urologist. Hematuria is associated with contusion of the kidneys, ruptured bladder, transected urethras and retroperitoneal hematoma, all of which are frequently seen in the emergency room.

Nervous System

Although there is no tube for evaluation and treatment of the nervous system, it is important to evaluate and record neurological findings. A quick evaluation of the central nervous system may be made by noting consciousness or history of previous unconsciousness, equality of pupils, arm and leg reflexes, Babinski signs and neck pain. The one important test which should be kept in mind in checking the conscious but severely injured patient is that he

should be instructed to move all four extremities and his response to this instruction recorded on his chart.

The most common causes of unconsciousness are: (1) syncope, (2) acute alcoholism, (3) cranial trauma, (4) cerebrovascular accident, (5) poisoning, (6) epilepsy and (7) diabetic acidosis.

Skin, Muscle and Bones

This system is purposely put at the end because emergent evaluation and treatment are usually not essential unless it involves one of the previously discussed systems. Any fracture or suspected fracture should be immobilized as quickly and efficiently as possible for comfort as well as protection of the bone and soft tissues. Again, lacerations of the skin in themselves are not serious to the life of the patient unless there is excessive bleeding from the area which has already been discussed. Repair of fractures and lacerations are not emergent and the total evaluation and condition of the patient must be kept in mind before any time is spent with these usually less important injuries.

Of great importance in the evaluation of a patient is the record of vital signs: blood pressure, pulse, temperature and respirations. These should be recorded immediately on admission, and if they are abnormal or there is expected change, a strip of tape can be placed on the patient's chest or arm and the vital signs taken and recorded here. Depending on the emergency, a white blood count, hematocrit, electrolytes and blood sugar should be taken as well as a blood urea nitrogen. The importance of following an injured patient by repeated examination and by repeated white blood count and vital signs cannot be over emphasized. While a single vital sign or laboratory value may be of minimal significance itself, a change may be of great importance in following the patient's course and subsequent treatment.

It is best to avoid removing foreign bodies from the patient if it is possible to evaluate him completely first. This includes ice picks or knives which have been thrust into the abdomen or chest.

Finally, the patient should not be sent to x-ray until he has been completely evaluated and is in a satisfactory condition for transport. Obviously, many people are going to be in a critical condition and judgment must be used in transporting these patients to the x-ray room to undergo the manipulation which is often required there. The physician should go with the patient to the x-ray room when there is a very unstable condition in the severely injured.

Reminders

1. Gross observation.
2. Obtain as adequate a history as time permits.
3. Complete and repeat as extensive a physical examination as time and the injury indicate.
4. The six systems and four tubes are:
   (1) Respiratory System—tracheostomy or endotracheal tube
   (2) Circulatory System—intravenous fluids
   (3) Digestive System—nasogastric tube
   (4) Urogenital System—catheter
   (5) Nervous System
   (6) Skin, Muscle and Bones
5. Treat the whole patient in order of priority.
6. Record your findings.
7. Operation may be indicated on the basis of a "high index of suspicion".
8. Don't be afraid to seek consultation.

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Plantar Warts

A ten-year survey at the University of Michigan Medical Center has proved what doctors and patients have long suspected—it's tough to get rid of warts. Philip C. Anderson, M.D., of the U-M Department of Dermatology, reports that warts frequently return at intervals ranging from seven weeks to ten years, "despite caustics, curetting, electrosurgery, excisional surgery and cryotherapy."

In a study of 129 University students, 40 per cent of plantar warts reappeared within ten years even though there had been apparent clinical cures at the time of treatment. Almost half of these appeared within six months.

The Superior Mesenteric Artery Syndrome

Roger Postmus, M.D.
E. Thurston Thieme, M.D.
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IN CONSIDERING medical literature, one of the interesting phenomena is the fact that certain syndromes having been well described, documented with reported cases and seemingly firmly established as a part of medical practice, fade from the picture. Duodenal stasis, acute or chronic, is one of these syndromes. This report concerns duodenal stasis only as caused by compression of the third part of the duodenum by the pedicle of the mesenteric artery, often designated as the superior mesenteric artery syndrome. This syndrome received a great deal of attention in the first quarter of the century, particularly in reference to studies on viceroptosis. There were many collected series of cases. Several of the larger series, such as those of Wilkie,[10] Kellogg,[3] or Weiss,[8] were compiled in the relatively short time of three or four years, indicating that the condition must have been considered prevalent. In recent years, the syndrome has been sporadically rediscovered and small series reported. This caused Wilk,[9] in 1956, to comment that the disease seems to be endemic in those areas where radiologists are aware of and trained in this diagnosis.

It is the purpose of this report again to draw attention to this syndrome and report our experience with 11 patients who were operated upon to correct this obstruction during the last five years.

The symptomatology of the superior mesenteric artery syndrome varies in proportion to the severity and the constancy of the obstruction. After reviewing reports, it is evident that clinical experience varies from one institution to another, sometimes leading to a misconception of this condition. Our own clinical experience which has been remarkably ill-favored by mental instability, has made us cautious but convinced that the syndrome exists.

The patients may be grouped into three types of cases. First, are the chronic cases who may give a history dating back to childhood, of periodic bouts of headache, right upper quadrant fullness, flatulence, malnutrition, nervousness and vomiting. If the pylorus maintains its tone, a closed loop type of obstruction occurs, resulting in severe pain relieved when the pylorus opens to allow vomiting. In others, there may be a chronic dilatation of the stomach and duodenum, relieved by occasional voluminous but effortless vomiting. These patients are usually poorly nourished, of an asthenic build and seldom of a dynamic nature. Such patients may endure this ill health for many years, labeled as psychoneurotics, unrelieved by appendectomy, cholecystectomy and less reputable operations to correct various aspects of viceroptosis. The results of surgery that relieves this obstruction have been reported as good. Wilkie reported an incidence of peptic ulcer of 25 per cent in this group. The peptic ulcer did not respond to treatment until the duodenal stasis was relieved.

Second, there are those patients of Group I who suddenly become completely obstructed and present as a surgical emergency. There may be no obvious inciting factor or there may be an emotional crisis, an illness producing weight loss or trauma. Autopsies performed on such patients showing tremendous dilatation of the stomach and duodenum formed the basis of the original description of this syndrome published near the turn of the century.

Third, there are those patients with acute obstruction without a previous history of gastrointestinal



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complaints. These are divided into those suffering trauma or an acute illness and those without a known precipitating cause. In 1878, Willette[11] reported the death and autopsy of a patient treated by a body cast for scoliosis. Massive dilatation of the stomach and duodenum to the superior mesenteric artery was found. Since then, the "cast syndrome" has been repeatedly described but duodenal compression from the superior mesenteric artery has not generally been accepted as the cause. However, very recently Kaiser[2] et al describe 18 cases of duodenal obstruction from all causes. Seven of the 17 were acute, three of the patients having suffered trauma about the pelvis.

The acute form of obstruction may also occur without any evident precipitating factor. These patients are usually well-nourished and do well following surgery.

The mental instability of many of the patients in the first two groups has been noted. This has been attributed to the chronicity of the illness and the patient's inability to get relief. Rosenburg and Sampson[5] described the dramatic change seen in their 11 cases following surgery when these chronic complainers, labeled as neurotics or psychotics, became well-adjusted citizens. Pool, Niles and Martin[4] in 18 patients found none that were not stable before symptoms started, but many had become neurotic and two actually psychotic as their illness continued unrelieved by medical treatment. They believed that if symptoms are not relieved within a year of onset, all patients would suffer mental changes. The consensus from more recent reports is that results are better if gastrointestinal symptoms precede the mental.

The diagnosis may be suspected by the history but it is the radiologist who makes the diagnosis by fluoroscopic and radiographic interpretation. This may be easily done or require several examinations. There is a typical sharp cutoff of the barium stream at the ligament of Treitz. Under the fluoroscope, duodenal dilatation is seen with an abnormally active churning to-and-fro motion of the barium column.

However, when the obstruction is acute, there may be serious electrolyte imbalance, dehydration, alkalosis and occasionally tetany. Persistent albuminuria has been noted that has cleared after corrective surgery. The physical findings and laboratory work are only a measure of chronic disease. The extent of the previously unsuccessful treatment is not due to difficulty in diagnosis, but to lack of suspicion of this diagnosis.

In considering the treatment of the superior mesenteric syndrome, there is general agreement that medical care must be used first. In cases of acute obstruction, gastro-duodenal suction, careful correction of electrolyte imbalance and supportive measures must be pushed vigorously. When this is accomplished, the surgeons advocate surgery, the internists further medical care. Further medical care includes frequent small feedings, antispasmodics and relief of the precipitating factor, if known. Positioning of the patient to the knee-chest, prone or left lateral position is often used. For the chronic case, once this diagnosis has been established, the surgeon advises surgery with some reservations. Surgical success in the treatment of acute or chronic obstruction has been frequently reported. Medical successes are not often reported. Surgical failures were not often admitted in the earlier series but more recent reports are more cautious, as it has become apparent that results are poor if there is a co-existing disease responsible for weight loss, particularly if the disease is mental or cardiovascular-renal. Bockus,[1] in his text—Gastroenterology, states that he never found it necessary to recommend operation for the correction of arteriomesenteric duodenal occlusion. We cannot agree with this stand.

The operation of choice for surgical treatment is duodeno-jejunostomy. This provides good drainage of the duodenum. Fortunately, the surgical correction of the various aspects of viceroptosis has been abandoned. Gastroenterostomy has not been adequate and gastric resection is not necessary. Recently, there have been isolated case reports of simple cutting of the ligament by Treitz.[6,7] The immediate results of a very few cases have been good. Resection and anterior reanastomosis of the duodenum has been reported. It was done for three of our cases but seems to be unnecessarily complicated surgery. Duodeno-jejunostomy has wide acceptance.

In discussing our experience with 11 cases that came to surgery in the past five years, certain general statements can be made. In all, the diagnosis was made by x-ray preoperatively, and in all, a duodenum dilated to the ligament of Treitz was found at operation. For eight patients, a duodeno-jejunostomy was performed. In three instances, a resection of the duodenum with an anterior reanastomosis was done. There were no hospital deaths but two are dead, one a suicide and one from arteriosclerosis. In nine of the 11 cases, the disease was chronic; in two it was acute. Non-elective surgery because of medical failure was required for three patients. Postoperative radiographs were taken for eight of the 11 patients. These showed a good function of the anastomosis with reduction in size of the duodenum. Despite rehabilitation and weight gain in those patients having a duodeno-jejunostomy, there was little tendency for the barium

column to return to the former course across the duodenum. Albuminuria was found occasionally preoperatively. This was not constant and there was no constant change postoperatively. We doubt that this is a constant or important part of the syndrome.

In discussing the results of surgical treatment in these 11 cases, it is difficult not to present individual case reports. Also, it is impossible in considering these case reports not to be impressed by the mental instability of these patients.

Case Reports

Case 1.—E. S., a 29-year-old woman, was admitted for treatment in April, 1956, because of four months of midepigastric distress following meals, ease of fatigue, nervousness and a 15-pound weight loss. Gastrointestinal radiographs were considered as showing no abnormalities, but the patient was discharged on an ulcer regime. She was readmitted three weeks later because of lack of improvement. Her father's illness, coincidental with the patient's illness, had terminated in death. Because of typical x-ray findings of this syndrome confirmed at surgery, a duodeno-jejunostomy was done.

The patient was well for one year. Upon readmission, radiographs showed a good function of the anastomosis but a gastric ulcer. Subtotal gastric resection was done. At the present time, four and one-half years later, she considers herself well except for occasional postprandial distress associated with excessive eating.

Case 2.—H. V., a 34-year-old woman, was admitted April, 1960, because of a two-year history of left upper abdominal pain coming on promptly after eating and frequently relieved by vomiting or lying flat on her back. There had been a recent increase in symptoms with a 10-pound weight loss. There had been a previous hospitalization for a "nervous breakdown." Because of typical x-ray findings, confirmed at operation, a duodeno-jejunostomy was done. Eight months later, she is asymptomatic but perhaps indulging in too much extramural charity, better directed toward her home and large family.

Case 3.—S. H., a 28-year-old woman, was admitted for study because of three years of right upper abdominal pain associated with bouts of nausea and vomiting. Cholecystectomy and later an exploration of the common bile duct had not improved the patient. Because of typical x-ray findings confirmed at operation, a duodeno-jejunostomy was done in April, 1960. Postoperatively, reoperation was necessary for obstruction to the efferent loop. Following this, her recovery was uneventful and eight months later she reports herself at full-time work as a nurse and feeling better than at any time in the last five years. Radiographs taken four months after surgery showed good function of the anastomosis.

Case 4.—K. B., a 34-year-old woman, was admitted for further study because of repeated bouts of upper abdominal distress, nausea and vomiting that had led to 10 previous hospitalizations and three major operations for intestinal obstruction at other hospitals. Because of x-ray findings, confirmed at operation, the duodenal obstruction was relieved by dividing the duodenum and performing an anterior reanastomosis. Her postoperative course was prolonged by ileus and a mental depression. Three years and four months later, her physician reports that the patient is still a very queer and inadequate person. The patient states that she has worked steadily since surgery but does have some abdominal distress. She has not been hospitalized since this surgery.

Case 5.—C. S., a 35-year-old woman, was admitted for medical care because of two years of upper abdominal distress, nausea and occasional vomiting of undigested food. Radiographs showed a hiatus hernia, a lesser curvature, gastric ulcer and obstruction to the third portion of the duodenum. Under medical care, there was x-ray evidence that the ulcer healed. However, the patient was comfortable only when properly positioned in bed. She could not return to work. Therefore, surgery consisting of repair of the hiatus hernia and relief of the duodenal obstruction by anterior reanastomosis of the duodenum was done. Four and one-half years later, her physician considers her neurotic, nervous and notes a facial tic. However, the patient reports that she has worked steadily until one month ago when she stopped to be married for the first time at the age of 40 years.

Case 6.—D. L., a 30-year-old woman, was admitted for study because of the acute onset two months previously of insomnia, anxiety, anorexia and during the last two weeks almost constant vomiting following eating. There had been a 13-pound weight loss. The inciting factor of this illness was never determined. Despite a high level of subjective anxiety, surgery consisting of a duodeno-jejunostomy was performed. During the first postoperative year, there were three hospital admissions for acute alcoholism. However, for the two and one-half subsequent years, she has remained steadily employed as a dental assistant and when seen three years, nine months after surgery, she had no gastrointestinal complaints. Radiographs taken a year following surgery showed a well-functioning anastomosis.

Case 7.—A 22-year-old man was hospitalized because of intermittent bouts of right upper quadrant and right flank pain of 18 months' duration. He had lost 18 pounds. For six years, he had found it necessary to lie down after each meal to prevent vomiting. This maneuver had not been successful in the last two weeks. At operation, the x-ray findings were confirmed and a duodeno-jejunostomy performed. A year and a half later, the patient's physician reports he is a queer fellow, easily upset emotionally and frequently complaining of weird parethesias. The patient states that he has worked steadily without digestive complaints but does have flank distress occasionally. Radiographs taken eight months after surgery showed normal function of the anastomosis with reduction of the duodenal dilatation.

If this report ended with the discussion of these seven cases, the impression would be quite favorable. It has not been possible to convey the clinical impression of emotional instability that makes the preoperative evaluation of these patients so difficult. Postoperatively, there has been little change in this

emotional pattern, but these patients are rehabilitated. The fact that their emotional pattern is poor should not deny them surgical relief of the duodenal obstruction.

The remaining four patients had a poor result. However, the indication for surgery in each was urgent. The basic disease, mental in three and arteriosclerotic in the fourth, produced a marked weight loss that precipitated the duodenal obstruction. When the obstruction was relieved, the disease continued, leading to the outcome to be expected from the basic disease.

Case Reports

Case 8.—A. C., a 70-year-old woman, was admitted for study because of a 45-pound weight loss occurring over a six-month period. She had suffered a loss of appetite, followed by bouts of nausea and vomiting of undigested food. This had progressed to almost complete duodenal obstruction. This was relieved by a duodeno-jejunostomy and two weeks later a small aortic aneurysm that did not contribute to the obstruction was resected. Radiographs one year later showed a normally functioning anastomosis, with reduction in the dilated duodenum. However, the patient's deterioration from generalized arteriosclerosis which had started her illness, continued to her death, one and one-half years later.

Case 9.—M. H., a 24-year-old woman, was admitted for study because of chronic ill health since the age of 12 years. During the last year, bouts of vomiting undigested food had occurred with increasing frequency. She had lost weight from 99 to 68 pounds. She was treated medically until intravenous fluids and gastric suction became the only means of support. The duodenal obstruction was relieved by duodeno-jejunostomy. She gained weight slowly following surgery. During the three years following surgery, she has been hospitalized at least three times, the last time for "self-induced purpura." Her schooling stopped at the seventh grade with an I.Q. of 80. She is a complete invalid supported by the state in her family's home.

Case 10.—C. S., a 19-year-old man, was admitted as an emergency case following an unsuccessful suicide attempt, in response to marital troubles. He gave a history of two years of mid-epigastric distress, vomiting and weight loss. He had been treated for a duodenal ulcer. During this hospital stay, attempts at alimentation were unsuccessful due to persistent vomiting. Radiographs showed the typical findings of this syndrome. When the continued failure of medical care made surgery urgent, duodeno-jejunostomy was done. Postoperatively, recovery was rapid. Five months later, radiographs showed good function of the anastomosis, and he had gained 15 pounds. However, a year later when acutely depressed, his suicide attempt was successful.

Case 11.—L. M., a 34-year-old woman, was admitted with a six-year history of intermittent bouts of nausea, mid-epigastric distress and occasional vomiting. During her father's terminal illness, these symptoms increased markedly requiring several hospitalizations. Radiographs were considered typical of this syndrome. Her weight dropped from 155 pounds to 90 pounds, despite medical care in the hospital. Surgery was done as an urgent operation. Following transection of the duodenum with anterior-reanastomosis, she remained obstructed and required an entero-enterostomy. Her recovery was slow. During the next two years, she required nine hospitalizations. Radiographs showed good function of the anastomosis, and at one time an active gastric ulcer was demonstrated. Two years after surgery, she was committed to a mental institution, where she is at the present time, two and one-half years after surgery.

Unfortunately, we cannot report a comparable series treated medically. We have a record of one patient who developed the "cast syndrome" when under treatment for multiple pelvic fractures. Medical treatment was successful until the patient became ambulatory, then no further treatment was required. He is well two years later. For two other patients, the diagnosis was suggested by radiographs, they were treated medically, and have been lost to follow-up.

Discussion

From this experience, we are convinced that the superior mesenteric artery syndrome exists. The diagnosis depends on radiographic and fluoroscopic interpretation and evidently is often missed. The true incidence of this syndrome is not known. The severity of the symptoms depends on the balance between the propulsive force of the duodenum and the degree of obstruction.

The propulsive force of the duodenum depends on a balance between the sympathetic and parasympathetic nervous system. Incoordination of these two systems may result in dilatation of the duodenum and weak peristaltic waves. Imbalance of these systems, as well as of the higher emotional centers, would seem to be characteristic of the clinical picture of many of these patients. Weight loss increases the possibility of obstruction by allowing more direct pressure on the duodenum by the pedicle of the superior mesenteric artery. Therefore, any disease which causes weight loss may be the precipitating factor that brings the potential duodenal obstruction into the clinical picture. Surgical relief of the obstruction will not alter the course of the primary disease but may allow weight gain. On the other hand, the propulsive force of the duodenum may become deranged by emotional tension or conflict and obstruction follow due to lack of propulsive force. In these cases, surgical relief of the obstruction affords

the clinician an opportunity to ride out the emotional crisis. In both instances, if the basic disease is unrelenting, its course will be unchanged, but the patient's remaining life may be more tolerable. However, surgery may provide the necessary relief to allow many of these patients to resume and maintain a productive life, even though labeled queer, inadequate or neurotic. Therefore, before advising surgery for these patients, elective or urgent, the surgeon and internist must realize with whom they deal.

Summary

1. Brief case summaries and the results of the surgical treatment for the superior mesenteric artery syndrome have been presented for 11 patients seen in the last five years.

2. From this experience, it is concluded that the syndrome exists.

3. Note is made of the emotional pattern of these patients. It is suggested that both the surgeon and internist must realize with whom they deal.

4. The results were satisfactory in seven, in that the patients were rehabilitated. In four, the results were bad, in that the basic disease progressed although the obstruction of the mesenteric artery syndrome was surgically relieved.

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Snow-Shoveling Threat

The increased frequency of heart attacks during the snow-shoveling and deer-hunting seasons is "more than coincidental," reported I. Donald Fagin, M.D., of Detroit.

He believes "such unaccustomed effort as tramping through snow burdened with heavy clothing may be conducive to myocardial infarction in the person with sclerotic coronary arteries (hardening of the arteries)." In his cases "my impression is that unusual exertion played a causative role in about 10 per cent."

In another study, Dr. Fagin said, 866 cases were reported with reference to the activity at the onset of the acute attack. The proportion of attacks occurring during strenuous exertion "was more than twice as great as the proportion of time spent in such activity and . . . the proportion of attacks occurring during sleep was only a third of what might be expected on the basis of time normally spent in sleeping."—FAGIN, I. D.: Are effort and occupation related to coronary occlusion? *Modern Medicine*, November 27, 1961.

Complications of the Morch Respirator

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In 1956, Avery, Mörch, and Benson[1] reported the incredible recovery of a man who was crushed into an 8-inch space by a Diesel engine against a steel furnace. He suffered multiple bilateral fractures of all ribs with bilateral tension pneumo- and hemothoraces, fractured sternum with separation of costochondral junctions, flail chest, and pulmonary contusions. In spite of all conventional methods of treatment, adequate ventilation could not be established until internal pneumatic stabilization was accomplished by the Mörch respirator.

Figure 1 shows the essential parts of the mechanical respirator which is constructed to permit adjustment of stroke volume and rate. These two factors determine the degree of ventilation obtained by positive pressure. The air flows through a humidification chamber then through a ball valve tube and an uncuffed tracheostomy tube to the patient.

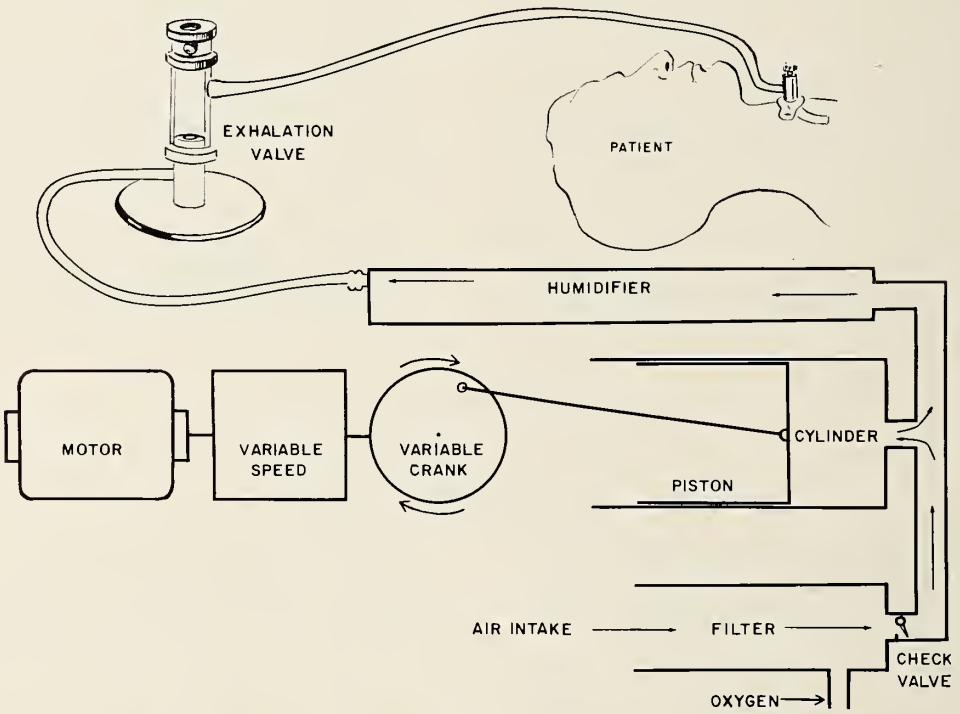


Fig. 1. Diagrammatic representation of essential parts of Mörch respirator.

Two factors are responsible for its efficiency. The mechanical factor, applicable to those cases of crushing injuries to the chest wall, corrects the abnormal movements of the thorax by producing an evenly distributed push during passive positive pressure inspiration returning the ribs to their normal movements while riding on an air cushion. The biochemical factor, applicable to all cases, is respiratory alkalosis produced by hyperventilation which leads to apnea allowing the respirator to totally assume the ventilatory function. Thus, it prevents overriding of frac-

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tured fragments of ribs reducing pain, restlessness, and excitement on the part of the patient, while delivering adequate amounts of air and oxygen to prevent hypoxia.

We have used the Mörch respirator 16 times in the past two and one half years for traumatic flail chest, central nervous system disease or injury with respiratory failure, drug intoxication, and postpneumonectomy respiratory insufficiency.

CLINICAL EXPERIENCE in 16 CASES

BENEFICIAL 10	NOT BENEFICIAL 6

COMPLICATIONS	CASES	MORTALITY
BRONCHIAL PLUGS	5	2
TENSION PNEUMOTHORAX	1	1
MASSIVE EMPHYSEMA	1	0
TOTAL	7	3

Fig. 2. See text for further details.

60-year-old man, admitted with steering wheel injury and flail chest, was treated with the respirator from the day of admission. On the fifth day, he became markedly dyspneic and cyanotic. Bronchoscopy was

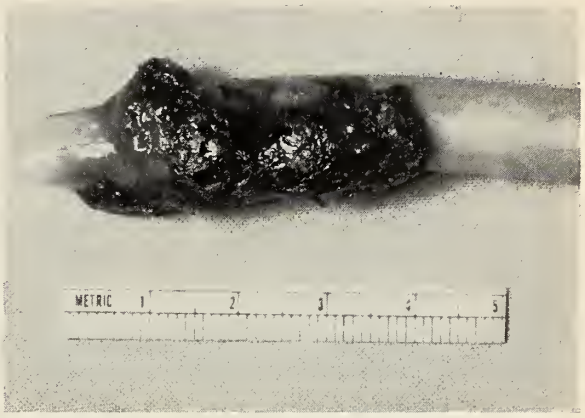


Fig. 3. Endotracheal tube with bronchial plug attached.

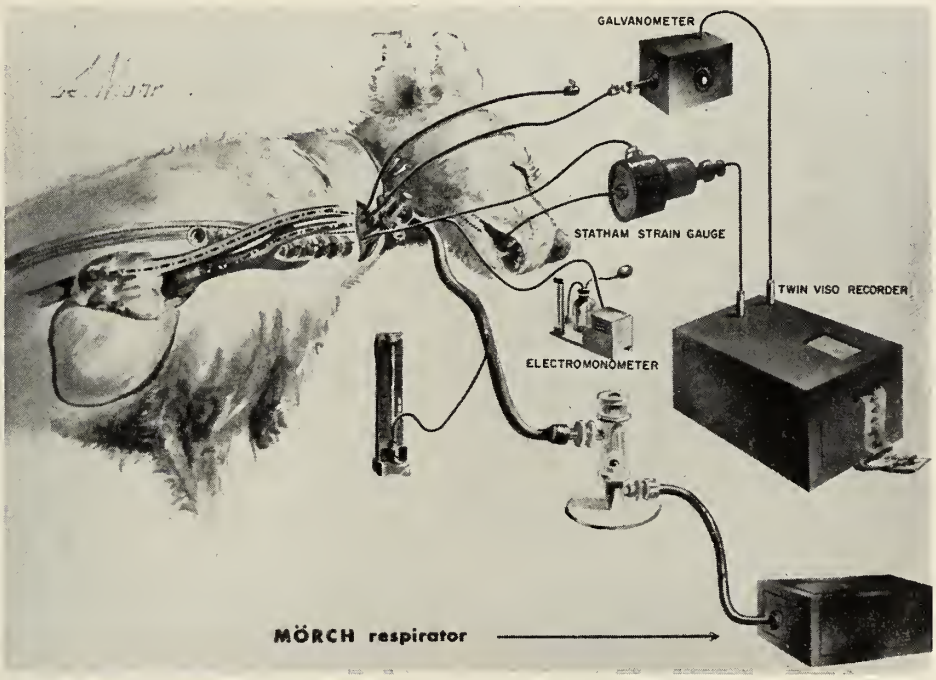


Fig. 4. Artist's conception of laboratory apparatus and its arrangement in the experimental animal.

In 10 of these cases, the use of the respirator has been beneficial, and in six cases it has not been beneficial (Fig. 2). In two of these six patients the respirator could not be used properly and was discontinued; in one it may have contributed to death, and the other three died of complications. There have been seven complications as follows:

Five developed bronchial plugs with airway obstruction. Figure 3 is a photograph of a bronchial plug similar to that found in the following patient. A done but was unsuccessful in removing the bronchial plug causing airway obstruction. Cardiac arrest followed, an endotracheal tube replaced the tracheostomy tube, but massage failed to resuscitate the patient. On removal of the endotracheal tube, a large bloody concretion adherent to the end of the tube was found. In one other case, smaller bronchial plugs and, in the other three, thick, tenacious secretions causing mild to severe obstruction of the airway were found.

One patient had a tension pneumothorax. On the

third day, the thoracotomy tube was removed when the pneumothorax was corrected. The same day, he developed a tension pneumothorax and expired despite emergency measures to correct this.

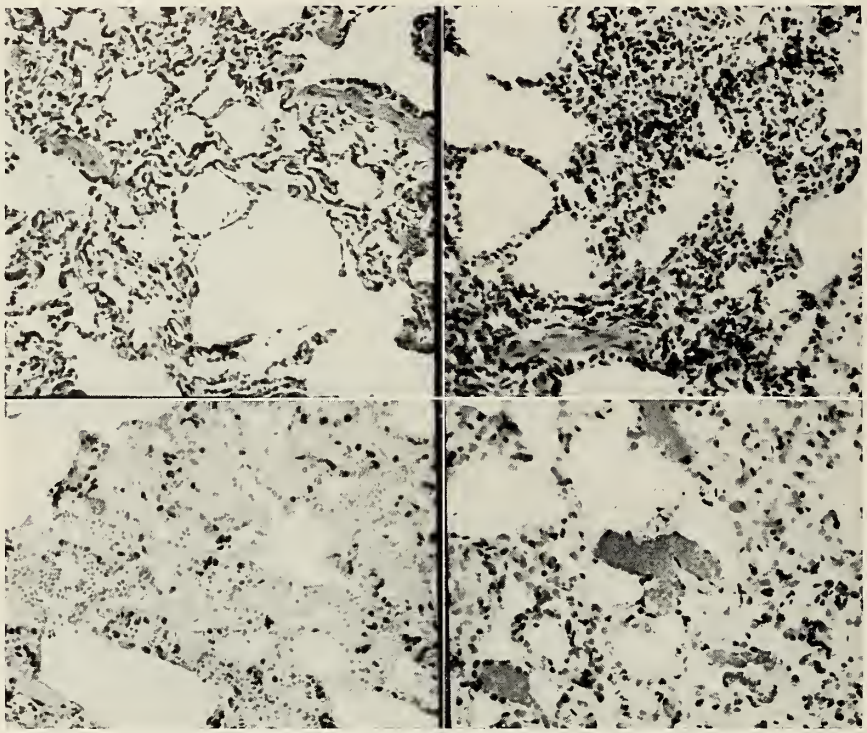


Fig. 5. Pathological sections of lung from experimental animals showing *(Upper left)* ruptured alveoli and emphysema, *(Upper right)* atelectasis, *(Lower left)* edema, *(Lower right)* hyperemia.

One patient developed severe subcutaneous and mediastinal emphysema when the tracheostomy tube was displaced.

One of the patients who had bronchial plugs was believed to have ruptured alveoli due to excessive stroke volume when the respirator was used by personnel unfamiliar with its use. This could not be confirmed since autopsy permission was denied.

In order to solve some of the problems encountered, a series of experiments was done utilizing anesthetized dogs. Our efforts were concentrated on the problems of bronchial plugs and ruptured alveoli. Nine dogs were used; in five of these the full data were obtained. Figure 4 represents the dog and the laboratory set-up necessary to obtain the data. A tracheostomy was done and the respirator connected in the usual manner, using the water-filled chamber of the respirator as the only source of humidification. A constant rate of 20 strokes per minute, with a varying stroke volume, was used. Arterial blood samples were obtained from the femoral artery before and after four hours on the respirator for determinations of oxygen saturation by the Van Slyke method, pH using a Beckman pH meter with sealed hypodermic type electrode, and p CO_2 using CO_2 content by the Van Slyke method and the Singer-Hastings nomogram. Catheters were placed through the external jugular vein to the right atrium and through the carotid artery to the aorta for measurement of central venous pressure and aortic pressure by a galvanometer. A plastic tube was placed in the trachea for measurement of intratracheal and alveolar pressures through an electromanometer. Pulmonary compliance was measured through a Statham strain gauge from another tube in the thoracic esophagus. Tracings were obtained through calibrated channels of a Sanborn Twin-Viso recorder. A dye was placed in the hypopharynx to evaluate the effects of the respirator on tracheal toilet. The presence or absence of water vapor in the expired air was determined by placing a glass slide ½ inch from the open end of the tracheostomy tube, noting the condensation of vapor on the slide. All experiments were carried out with a closed chest, except to obtain specimens of lung tissue after periods of over 12 hours on the respirator at 3400 cc. stroke volume. All dogs were sacrificed and the tracheobronchial tree, lungs, and heart examined. The results were as follows:

1. *The Slide Test.*—In all experiments, water vapor in the expired air changed from excellent at the start to none after more than 10 hours. In three dogs, thick mucus secretions were found after 10 hours on the respirator. This was corrected by using a drip of normal saline through a 25-gauge needle at 6 to 8 drops per minute into the tracheostomy tube as advocated by Luders et al.

2. *The Dye Test.*—In all experiments, the dye placed in the hypopharynx was not recovered from the tracheobronchial tree. Examination revealed staining over the lingual surface of the epiglottis, but none beyond this area indicating efficiency in preventing aspiration of hypopharyngeal secretions.

3. *Blood Pressure Readings.*—A steady slow decline in arterial blood pressure was found as increasing levels of hyperventilation were reached. There was a variable rise of central venous pressure during inspiration. However, at the usual levels of ventilation no significant changes occurred.

4. *Pathological Findings in Lung Tissue.*—Mild to moderate changes of hyperemia, edema, focal atelectasis and ruptured alveoli and emphysema were found subsequent to prolonged excessive hyperventilation (Fig. 5).

5. *Tracheal and Alveolar Pressure.*—In addition to changes from varying stroke volume, tracheal and alveolar pressures varied according to the relative size of the trachea and larynx and the tracheostomy tube used (Fig. 4). The intratracheal pressures were measured from the endotracheal catheter through the electromanometer and with a sphygmomanometer with no significant difference. The pressure ranged from 4 mm. Hg. at 1000 cc. stroke volume to 15 mm. Hg. at 3400 cc. stroke volume. The corresponding alveolar pressures ranged from 1 mm. Hg. to 5.8 mm. Hg. These pressures with the higher stroke volume are abnormal and explain the pathological findings described previously. Determinations obtained through the sphygmomanometer from a needle in the tube between the exhalation valve and the tracheostomy tube, as previously done clinically, ranged from 8 mm. to 43 mm. Hg. respectively and did not represent intratracheal pressures, these pressures being significantly higher.

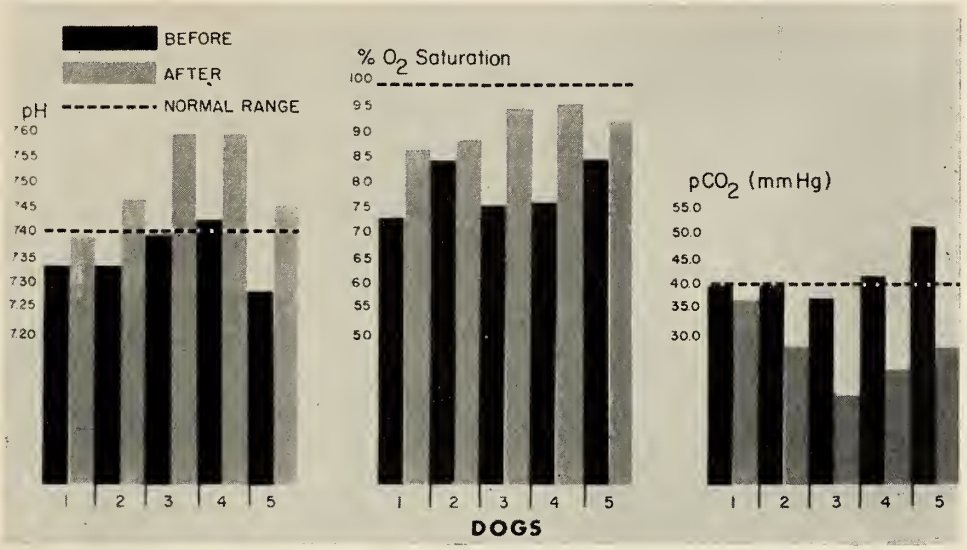


Fig. 6. Results of blood studies on pH, O_2 saturation, and pCO_2. See text for details.

6. *Arterial Blood Studies.*—Studies were done with the respirator at 1000 cc. stroke volume and a rate of 20/minute. In Figure 6, the black columns represent values before the use of the respirator. The light columns represent values after four hours on the respirator. They consistently showed a shift toward an increase in oxygen saturation, also an increased pH and a decreased p CO_2, producing respiratory alkalosis.

A 32-year-old man (Fig. 7) was admitted with severe closed intracranial trauma with mid-brain injury following an automobile accident. He developed complete respiratory arrest and was placed on the Mörch respirator. It was demonstrated on this patient that the humidification provided by the respirator alone was inadequate by the slide test and that it would

return to normal using the saline drip into the tracheostomy tube. An intratracheal pressure of 11.5 mm. of Hg. was obtained with a stroke volume of 1200 cc. at a rate of 16/min. Adequate ventilation was produced as determined by the intensity of the respiratory sounds which were recorded by a phonocardiographic apparatus as shown here.

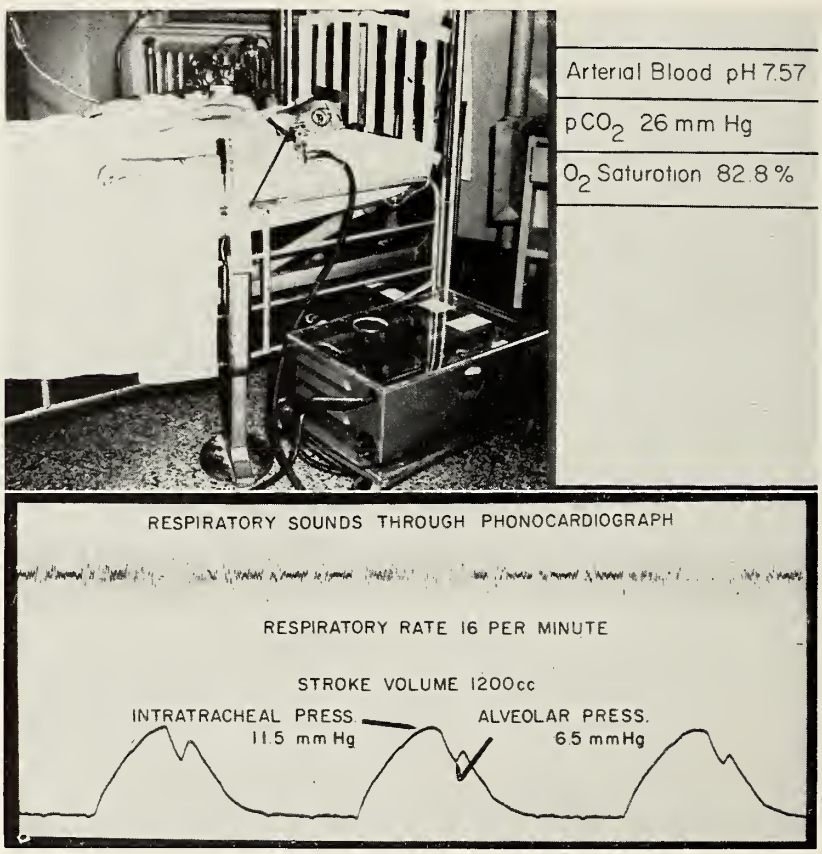


Fig. 7. Trauma patient on the Mörch respirator. Graphic record below—see text for details.

Although the Mörch respirator may be beneficial and at times life-saving in the treatment of severe injuries to the chest and other forms of respiratory insufficiency, lethal complications may result if improperly used.

In summary, we would like to recommend:

1. *Adequate humidification*

(a) In addition to that supplied by the respirator, a normal saline drip through a No. 25 gauge needle at 6 to 8 drops per minute directly into the tracheostomy tube.

(b) A check at regular intervals of water vapor in the expired air by the use of the slide test.

2. *Adequate ventilation*

(a) Inspection of the thoracic cage for satisfactory expansion.

(b) Auscultation with the stethoscope to determine adequacy of ventilation by the intensity of the breath sounds.

(c) Intratracheal pressure determinations obtained by placing a sterile plastic catheter in the trachea beside the tracheostomy tube using a sphygmomanometer.

(d) Meticulous tracheostomy care is imperative. Care should be taken to prevent displacement of the tracheostomy tube while moving the patient.

(e) Maintenance of tube thoracotomy with underwater tidal drainage until the danger of pneumothorax is past. Before and after removing the thoracotomy tube a careful evaluation and follow-up by clinical and radiological methods must be done to prevent or to treat promptly a tension pneumothorax.

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Cardiac Contusion Complicated by Cardiac Tamponade

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CARDIAC contusion is a frequently missed entity which may be fatal if unrecognized and untreated.

The incidence of cardiac injuries secondary to nonpenetrating chest trauma is unknown but is undoubtedly increasing due to the tremendous increase in the number of high velocity automobile accidents on highways and freeways. The first case of myocardial contusion resulting from a closed chest injury was described in 1676, and in 1940, Warburg[1] had collected a total of 225 reported cases. Also in 1940, Leinoff[2] examined patients in 50 consecutive cases of fatal automobile accidents and found that 16 per cent showed evidence of gross trauma to the heart.

Examination of the charts of 370 cases of patients with fractured ribs seen in our hospital between January 1956 and June 1959 revealed 13 cases of substantiated cardiac injuries. This was an incidence of 3.5 per cent. We believe the incidence would have been higher than this if a medical examiner's autopsy had been done for these patients who expired soon after admission.

Blunt trauma to the chest causes injury to the heart and pericardium by compression of the heart between the bodies of the vertebrae and the sternum. This is possible due to the flexibility of the rib cage. Rib fractures increase the mobility of the sternum and increase the possibility of a myocardial contusion.

Contusion of the myocardium is usually undetectable immediately after injury. Symptoms may be absent or may consist of vague substernal chest pain which is difficult to evaluate because of the pain present from contusions of the chest wall and fractured ribs. An EKG taken as soon as possible after admission serves as a valuable base line in interpreting later changes. Within 24 hours after the injury, the laboratory findings will be essentially those of a myocardial infarction with EKG changes showing subepicardial ischemia or a conduction defect. Abnormal rhythms are also reported. The serum glutamic oxalo-acetic transaminase is elevated.

The recommended treatment is the same as for a myocardial infarct and most of these patients go on to uneventful recovery. Some of the complications may be the development of an arrhythmia, congestive heart failure, and ventricular aneurysm. A few patients will develop a slow insidious pericardial effusion which progresses to cardiac tamponade over a period of several days to as long as several months. This is a serious complication and may lead to death or to later constrictive pericarditis.

Goodkind[3] et al reported two cases of slow insidious onset of tamponade in 1960. Their first patient came to them with symptoms two months after injury and their second patient two weeks after injury.

The following case will serve to illustrate the problems involved.

Case Report

A 22-year-old man was brought to our emergency room following a two-car collision. Examination on admission showed a blood pressure of 160/100, pulse 100, respirations 28. There were contusions over the forehead and the anterior chest wall, and x-rays showed a comminuted fracture of the left patella and separation of the sternomanubrial joint with substernal hematoma. Examination of the lungs was not remarkable. The patient complained of pain over the anterior chest and the left knee. An EKG taken on admission was interpreted as normal, while a repeat EKG taken four days after admission was reported as suggestive of myocardial damage. Serial EKG's and SGOT determinations were obtained and confirmed the diagnosis of myocardial injury. Pericarditis was also suggested by the EKG. On his sixth hospital day, the patient was noted to be in acute distress with increased substernal pain and pain in the right shoulder. He was cold and perspiring profusely. Pulsus paradoxicus was easily detectable, and x-rays showed an increase of the transverse diameter of the heart shadow (Fig. 1).

Pericardiocentesis was done immediately with aspiration of 250 cc. of serosanguineous fluid. A small polyethylene catheter was threaded through the needle into the pericardial sac and left in place to provide continuous drainage. The patient's condition improved after this procedure. The plastic catheter

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continued to drain for four days. Daily aspirations were performed. On his fourth postoperative day only 10 cc. of fluid was obtained and a pericardial friction rub was present. The catheter was then removed. Two days later there was recurrence of chest pain and a paradoxical pulse. Pericardiocentesis was repeated and 195 cc. of serosanguineous fluid was removed. Air was injected into the pericardial sac and an x-ray was obtained (Fig. 2). Following this aspiration, the patient had an uneventful recovery and was last seen in our Outpatient Department five months after injury without clinical or EKG evidence of heart disease.



Fig. 1.

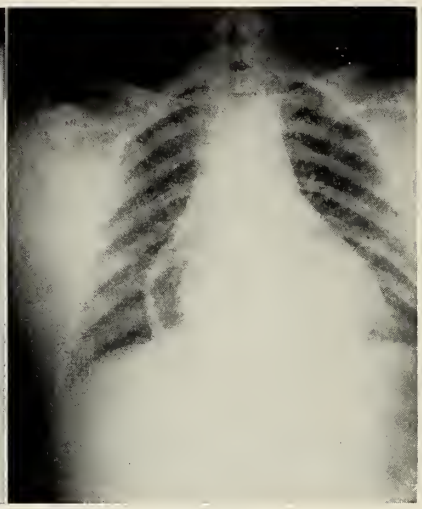


Fig. 2.

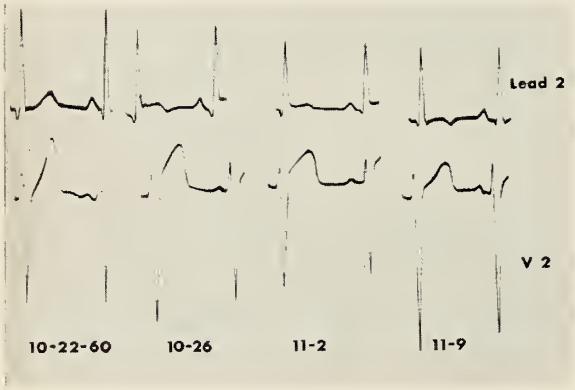


Fig. 3.

Figure 3 shows four EKG tracings using standard lead II and V2. The first tracing is interpreted as normal. The second tracing shows nonspecific ST-T wave changes. Serial EKG's, not shown, were unchanged. The last two EKG's on the slide show evolution of these changes which are interpreted as a healing myocardial injury.

Lacerations of the myocardium produce an acute hemorrhagic pericardial effusion and cardiac tamponade which constitutes a surgical emergency. Pericardiocentesis may be life saving. This should be followed by repeated pericardiocentesis or thoracotomy with suturing of the laceration if tamponade reoccurs.

The technique of pericardiocentesis is simple and can be done with care by any physician. There are several ways to perform pericardiocentesis. We prefer using a 17 cm. long, 17 gauge, thin walled needle which is inserted in the angle between the xiphoid process and the left costal arch. The needle is directed dorsally and cephalically and angled slightly to the left. Puncture of the pericardial sac is usually felt as a sudden decrease in the amount of pressure needed to advance the needle. As soon as fluid is aspirated, the needle is fixed with a hemostat to prevent further entry and injury to the myocardium. The needle is withdrawn slightly if myocardial contractions are transmitted to the needle. We believe when a large amount of fluid is present that continuous drainage by means of a polyethylene catheter should be considered.

In conclusion, we emphasize that cardiac contusion is a fairly frequent complication of the closed chest injury. It is our policy to obtain an EKG tracing on every patient with significant trauma to the chest and a follow-up tracing after three to four days. If a positive diagnosis is made the patient is treated as though he were a myocardial infarct. Careful observation for the presence of cardiac effusion is indicated and immediate treatment should be instituted as soon as evidence of cardiac tamponade is present.

The classical signs of cardiac tamponade are:

1. *Orthopnea*
2. *Neck vein distention*
3. *Paradoxical pulse*
4. *Weak apical impulse*
5. *Distant heart sounds*
6. *Narrowed pulse pressure*
7. *Diminished pulmonic second sound*
8. *Elevation of venous pressure*

A chest radiograph will show an increase of the transverse diameter of the heart shadow and cardiac fluoroscopy will reveal diminished ventricular pulsations.

Pericardiocentesis may be life-saving, and early diagnosis and treatment may decrease the chances of development of constrictive pericarditis.

Because of the possible development of chronic pericardial effusions, cardiac arrhythmias, congestive heart failure, or ventricular aneurysm, it is necessary to follow patients with contusive injuries for several months before they are considered recovered.

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Methods for the Experimental Study of Thrombosis

Nearly 100 different methods have been used for the experimental production of thrombosis. In an annotated bibliography (Angiology, In Press) I have noted that the conclusions adduced vary according to the particular method used and can apply only to thrombi induced by similar methods. Furthermore, the reliability and reproducibility of each method is dependent upon the procedure used to find the thrombi produced. Quick-freezing and freeze-substitution fixation are satisfactory for finding and examining thrombi produced experimentally in the jugular veins of the rat. Direct mechanical injury to blood vessels, which has been criticized for failure to induce a significant and reproducible percentage of experimental thrombi, resulted in thrombosis within 45 minutes in 92 per cent of veins studied by quick-freezing procedures. The number of thrombi found had been reduced to 47 per cent by 14 hours and to 20 per cent by 11 days, presumably by the rats own thrombolytic mechanisms. Venous thrombi examined 1-45 minutes after injury consisted mainly of platelets and contained no stainable fibrous material. White blood cells within the thrombotic masses began to increase in number 10 minutes after injury. Thrombi examined in a period from 3-14 hours contained fibrous material characteristic of fibrin. Those examined in a period from 1-11 days contained fibrous material characteristic of collagen. The use of a method for finding thrombi which locates all those produced makes clear the deficiencies of producing experimental thrombi which involve rapid blood stasis and which reduce or eliminate cellular and metabolic activities and thereby reduce or eliminate stages of thrombogenesis and thrombolysis.—Abstract of paper presented at a meeting of Detroit Physiological Society by R. L. Henry, M.D., Detroit.

Multiple Finger Amputations — Concepts of Treatment

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THE PATIENT who has suffered a sudden loss of a major portion of his hand is irreparably disabled. However, as long as the disabled hand still has sensation, reasonable prehension (grasp), and is painless, it is superior to present prosthetic replacements as remarkable as they may be. Prehension may be obtained quite satisfactorily by hand amputation and prosthetic replacement, however, the very important stereognostic sense that is present in the normal hand cannot be synthesized.

Wherever possible, therefore, it is desirable to preserve all hand structures that have reasonable nerve and blood supply and that can be counted upon to restore natural sensation and prehension. The surgeon who first sees a badly traumatized hand has an opportunity and a responsibility to preserve as much viable tissue as possible. He should also understand the concepts of the function of the hand so that he may wisely plan for future reconstruction.

Function of the Hand

The normal hand performs a multitude of functions which include pinch, grasp, hook, strike and push. All of these are done with mobility, agility and speed in varying degrees of skill and tactile appreciation. The hand, therefore, is a prehensile device to hold and handle objects. The rest of the arm acts as a crane to move them about in space. If the functions of the hand be wanting because of loss of substance, power, coordination or sensation, the hand ceases to be of any functional value. Figure 1 shows some of the basic types of prehension of the normal hand.

In major destructive hand wounds, the number of digits and metacarpals and their associated structures which are lost or damaged is of prime importance. The contribution of these structures to hand function and their loss to the remaining hand must be evaluated.

The thumb is the most important digit of the hand. It serves as the opposing pole in prehension. Its effectiveness is in direct proportion to its length and mobility and placement. Obviously, the integrity of the skeletal structure and its motor balance, especially at the metacarpal-carpal joint are of importance. The thumb web space provides freedom of motion and also a cleft for grasping space. The fingernail is essential for fingernail pinch. A short thumb can be a very functional digit as long as other digits can reach it and the cleft is deep enough. Retaining the base of the phalanges may be of importance in function as long as there is a tactile pad covering. Amputation through the proximal portion of the proximal phalanx is disabling and marked improvement may be obtained by phalangization of the thumb cleft. Amputation through the metacarpal of the thumb leaves an essentially functionless thumb. The only treatment possible is to provide a thumb prosthesis or construct a new thumb with length, motion and sensation. This is best carried out by the formidable procedure of transplanting the index or middle finger to the thumb base. Reconstruction of a thumb by a pedicle skin graft and a bone graft is usually functionally poor because of lack of circulation and sensation.

The index finger is most important in providing the opposite pole for most of the functions of grasp and pinch. It provides spread for grasp opposition to the thumb for chuck-pinch, fingernail pinch and key pinch. When amputation occurs proximal to the DIP joint, distal pinch is transferred to the middle finger. When amputation occurs proximal to the PIP joint, the stump



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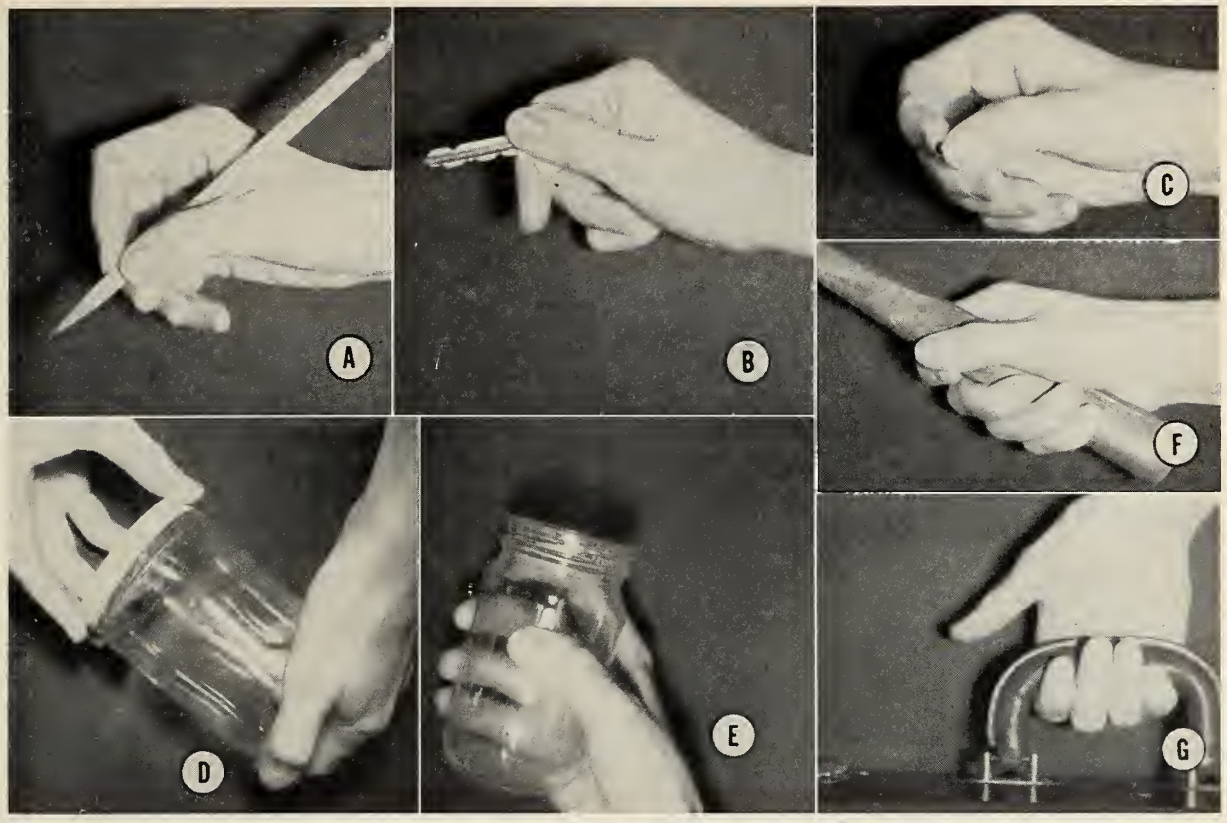


Fig. 1. Types of prehension of the hand. Pinch and grasp require two apposing poles. (a) Represents "chuck pinch" (b) lateral or key pinch (c) fingernail pinch (d) finger grasp (e) palmar grasp (f) firm palmar and finger grasp (g) hook action.

acts mainly in widening the palm, however, lateral pinch can still occur and may be of functional importance. Amputation at or proximal to the MP joint offers no function and, if the amputation is in the shaft of the metacarpal, it is better to amputate obliquely at the base. This will improve the functional relationship between the thumb and middle finger.

The middle finger contributes to strong grasp, pinch and hook action. It reinforces the index finger's actions and also substitutes for them. Loss of the middle finger also allows loss of cup action of the hand, small objects fall through the closed hand. Amputation through the metacarpal results in loss of stabilizing effect of the transverse metacarpal ligament. Adjacent fingers rotate away from the missing finger. Its metacarpal also provides an insertion for the strong adductor pollicis muscle.

The ring finger fills in the finger span and, along with the small finger, provides the palmar arch with mobility. Metacarpal loss results in rotary deviation of adjacent fingers.

The little finger adds to the width and strength of grasp. Its presence is especially important in loss of other fingers. Amputation through its metacarpal is best carried out obliquely at its base to avoid a cosmetically and functionally deterring hump on the ulnar aspect of the hand.

Multiple Finger Amputation

When amputation of more than one finger or major portions of the hand occurs, the problem of functional rehabilitation of the injured hand becomes increasingly complex. Surgical rehabilitation of such a hand has as its main objective creating prehension with sensation. The manner in which the functions of the hand are obtained is dependent upon the severity of loss. There is basically a great compensatory ability of the hand to substitute function and many of the grosser functions of the hand may be accomplished in the presence of severe tissue loss.

The main objective in the surgery of the severely disabled hand is to salvage all remaining digits and digital remnants and save as much length as possible to preserve the palm, to provide a functional thumb and an opposing pole for pinch and grasp. In the primary procedures, the resulting remnants may be insufficient to obtain necessary function and secondary reconstructive procedures will be in order. The im-

portance of having adequate tissues to work with in the reconstructive stage of treatment cannot be stressed too much. It is important, therefore, to outline



Fig. 2. Examples of partial hands which can function quite satisfactorily. (Drawings modified from Bunnell, S.: *Artificial Limbs*, 3:1957.)



Fig. 3. Partial hand which requires a prosthesis or a post-reconstruction.

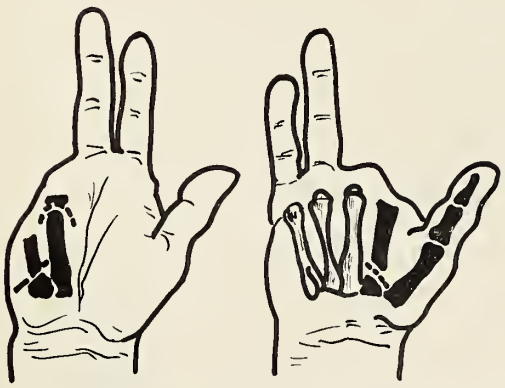


Fig. 4. In the case of loss of the fifth digit or second digit, it is best to excise the metacarpal at its base.

some of the important steps in the primary treatment of the major amputation.

Primary treatment of major amputations of the hand require the facility of the main operating room and good general or regional anesthesia. A preoperative evaluation of motion and sensation with the patient awake is helpful in determining viability of structures and degree of involvement. A pneumatic tourniquet is used for hemostasis and can be left on the arm for an hour and a half without complication. It may be

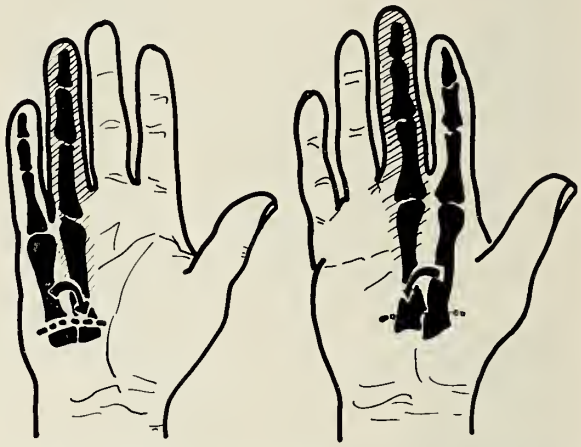


Fig. 5. Absence of the fourth or third digit is improved by transposing the adjacent digit, fifth or second, to fill in the gap. This results in a cosmetically and functionally superior four-fingered hand.

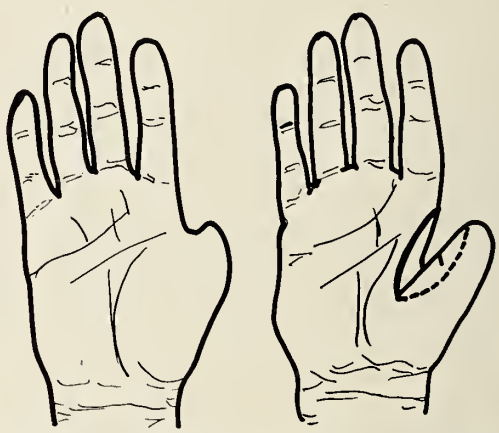


Fig. 6. Short thumb stump may be improved by deepening the thumb cleft with muscle stripping and a Z-plasty.

reinflated after ten minutes of allowing the hand to be revascularized. Mechanical cleansing of surrounding skin and nails with care to avoid further trauma and blood loss is carried out. Gentle irrigation of the wound with copious amounts of normal saline should be done. Careful evaluation of the extent of the injury which requires a knowledge of the anatomy and function of the hand should be carried out. A tourni-

quet must be used in inspection of deep structures. It should be released for evaluation of vascular supply to questionably devitalized tissues. Devitalized tissue and debris should be carefully removed. Flaps of skin and is usually preferable in the primary treatment phase.

Fractures should be judged with the aid of an x-ray taken in surgery. Alignment and fixation with

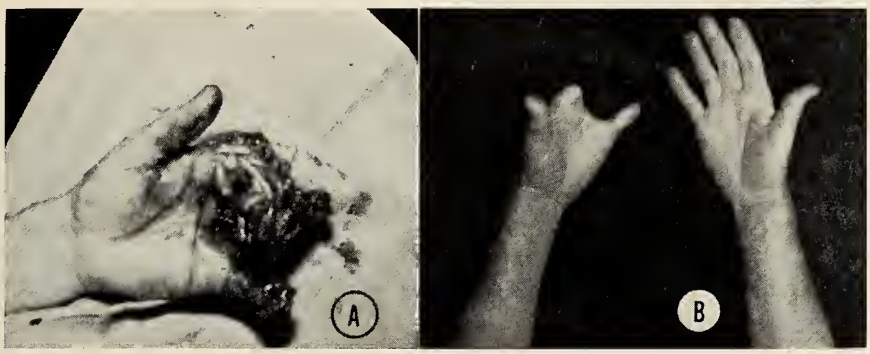


Fig. 7. (a) Preoperative photograph of destructive hand wound from punch press injury. (b) Postoperative view shows normal thumb with partial index and small finger. This patient had pad pinch between thumb and small finger, lateral pinch between thumb and stump of index, good palm and painfree stumps. Patient has a good assistive hand.

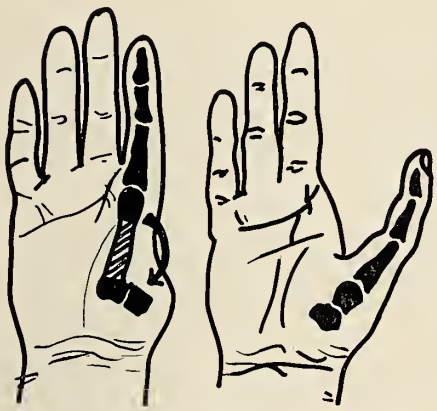


Fig. 8. Pollicization of index finger to replace thumb loss. Nerves, tendons, vessels moved along with finger as a pedicle, thus supplying sensation, nutrition and motion.

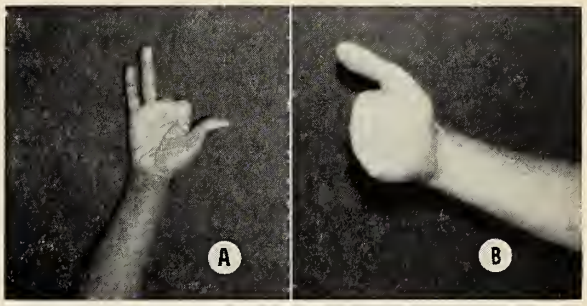


Fig. 9. (a) Patient with amputation of index and middle fingers. Would benefit from resection of index metacarpal. (b) Patient amputated through metacarpals with good thumb. Patient needs partial prosthesis because he lacks apposing pole for opposition.

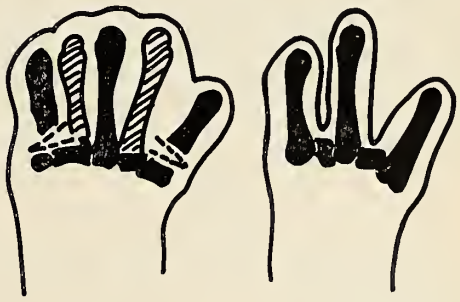


Fig. 10. Reconstructive procedure for amputation through MP joints. Excision and phalangization procedure results in functional grasping mechanism.

and partially amputated parts may be saved to great advantage of the hand at this stage. Metacarpals should not be resected merely to obtain skin closure. Debridement is usually sparse in the hand.

A most important factor is skin cover. Primary intention healing is of greatest importance. The scarring and fixation that occurs in the hand with delayed secondary healing is disastrous to function. Skin closure is, therefore, of major importance. Even small tags of viable skin may be used with success. If skin closure is inadequate, the primary skin pedicle flap may be used to cover a major skin and subcutaneous tissue loss. Split thickness skin coverage for complete closure of the wound is easy to accomplish Kirschner wires is important. Fixation by a dressing is usually unreliable. Nerve identification and primary suture is important in favorable cases. Tagging nerve ends with wire sutures is helpful in later reconstruc-

tion when secondary repair is indicated. In an amputation, digital nerves when sacrificed are pulled into the wound, cut cleanly across and allowed to retract approximately one-quarter of an inch into tissue which will be free of scar. Triple-0 catgut suture is used



Fig. 11. Osteotomy of the first and fifth metacarpals aids in bringing the radial and ulnar sides of the hand together for better apposition.

for vessel ligature. Tendons are pulled down and cut and allowed to retract except where amputation occurs at the metacarpal phalangeal joint of the ring and small fingers. The long tendons may be attached to the distal end of the bone in this situation to provide increased motion of the palmar arch. In severe cases, tendons are repaired simply by tagging ends together. Secondary repair is done at a latter stage. When conditions are most favorable, tendons may be repaired primarily. Subcutaneous sutures are usually unnecessary. Wire or nylon skin sutures are preferred. Multiple small rubber drains are placed in the wound and a voluminous gauze fluff pressure dressing over rayon and furacin skin dressings is used. A knit gauze roller bandage is applied over a plaster splint for fixation. Elevation against an IV standard is helpful. Blood replacement, antibiotics and tetanus protection are routine.

Summary

The hand is a most important organ whose preservation is of greatest importance to the physical, social and economic rehabilitation of the individual. The understanding by the surgeon of the important functions of the hand aid him in realizing the necessity of preserving elements of the hand for push, grasp and hook. The hand has a great capacity for functional substitution. It is important to emphasize the importance of primary surgery in the eventual successful rehabilitation of the hand. The surgeon who first sees the patient with a major destructive hand wound has a great opportunity to preserve the remaining function of the hand.

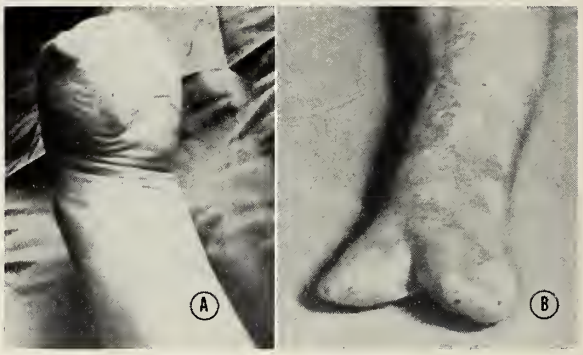


Fig. 12. (a) Preoperative view *(left)*. This patient suffered an avulsing, crushing wound of all fingers in a corn mill in February, 1956. Primary surgery consisted of saving as much length as possible, using remaining skin tags and split skin from amputated fingers for skin coverage.

(b) Postoperative view *(right)*. Photograph taken September, 1956, showing grasping mechanism obtained following phalangization of thumb metacarpal with resection of index metacarpal and second multangular. Tactile skin was rotated onto apposing surfaces. Split thickness skin was used to fill defects. This patient has a functional, assistive hand, painless with good sensation and is back to work at his previous job.

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Cholesterol Levels Predictive

Diet, cholesterol and heart disease have been linked by many medical investigators. Now, William Wanamaker, M.D., Beverly Hills, California, believes that high cholesterol levels in otherwise normal adults under forty have predictive value for premature vascular disease and suggest "an accelerating atherosclerotic process." He bases his belief on a study of cholesterol levels in 1968 private patients ranging in age from twenty-four to eighty-four years.—*The Journal Lancet*, August, 1961.

Use of Walking Casts for Ankle Sprains

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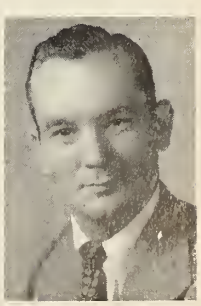
SPRAINS of the ankle, the most common traumatic lesions of the lower extremity, have been neglected and inadequately treated for many years. Their morbidity has been underestimated and they have mistakenly been considered trivial injuries in the absence of demonstrable associated fractures. In reality, the residual disability resulting from such sprains is in the neighborhood of 60 per cent of all treated cases.

These sprains occur at any age, but are more frequently seen in younger persons and as a result of athletic pursuits. Activities producing a relatively high rate of ankle sprains include active military service, skiing, hockey, soccer, football, baseball and skating. Physicians seeing large numbers of athletes and military physicians are best acquainted with the high incidence of ankle sprains and with the resulting stubborn sequelae. For example, in a two-year experience at the U.S. Army Hospital, Bad Kreuznach, West Germany (1955-57), more than 250 severe sprains requiring hospitalization and long periods of immobilization were treated by the senior author alone. This is exclusive of cases treated by other members of the surgical department of this particular hospital.

Partial or complete laceration, as well as overstretching of the ligaments, is commonly seen in ankle sprains. These may occasionally be associated with fracture, particularly when the stretched ligament is a strong one, such as the deltoid, and when the force is great. The bony attachment of the ligament is then sheared off with resultant fracture.

Ligaments about the ankle joint form three groups: the medial collateral or deltoid is strong and thick and has three components fused to form a thick band. It may be strained but a tear of this ligament is relatively uncommon. Secondly, the more commonly sprained lateral collateral ligament in three parts is relatively weak, and this weakness increases as the anterior part of the ankle joint is approached. The third group, of which the inferior tibiofibular ligament is most important, is necessary for the integrity of the ankle mortise. This, incidentally, is the least understood ligament of the ankle joint. Its lacerations are usually associated with a fracture of the medial malleolus and the lower shaft of the fibula and are not, therefore, pertinent to the present discussion. Thus, most ankle sprains are associated with injuries to an external collateral ligament. Watson-Jones has stated (and we agree), that there is no distinction in practice between a simple over-stretching of this ligament or a simple sprain, and avulsion associated with dislocation or fracture dislocation of the ankle joint. Therefore, simple sprain may be considered to be in many cases as serious and complicated as fracture in the region of the ankle joint.

As in many injuries of bones, joints, and ligaments, the degree of residual disability following a sprain is not proportional to the degree of laceration of the ligaments. Many reports in the surgical literature support this observation. Residual disabilities following ankle sprain consist of pain or tenderness of the soft tissues over the ankle joint, marked swelling of these soft tissues, and disability in weight-bearing and walking. There is an increase in the degree of motion in eversion and inversion, abnormal lateral movement



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Presented at a meeting of the American College of Surgeons Regional Committee on Trauma and Nutrition (for the 9th Annual Frederick A. Coller Award), Ann Arbor, May 26, 1960; and at a meeting of the Central Michigan Committee on Trauma (Annual Keyport Trauma Day), Gaylord, June 16, 1960.

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as well as increase in the motility of the ankle mortise and talus, weakness of the peroneal muscle, and ankle joint effusion.

When joint effusion occurs, adhesions are formed in the capsule of the joint with associated synovitis. This occurs a few weeks after the initial injury, especially in the absence of adequate demobilization and splinting of the joint. Manipulation of this joint and putting it through a full range of motion tends to break the adhesions and is a useful technique in the treatment of patients who have had inadequate initial treatment.

The abnormal incidence of increased motility of the ankle joint following sprain raises the question of the differential diagnosis between subluxation and true dislocation in some patients. Frequently, simple x-ray studies do not aid in this differential diagnosis. We have often been able to solve this problem by "stress roentgenography". Force is applied, usually with the foot in inversion, as external collateral ligament injury is common. By putting the foot in full eversion, injury to the deltoid ligament is ruled out. If the talus tilt does not exceed approximately 15 degrees, we are not concerned about serious laceration of the external lateral ligament. Beyond this 15-degree limit, we consider that a serious laceration exists. This is best demonstrated in comparative x-ray views of the ankle joint. If pain is intense, such studies cannot be done without the use of anesthesia. We have not used, and do not recommend, local infiltration with Procaine and early mobilization as advocated by Leriche a number of years ago.

One also sees a large number of patients with chronic unilateral edema of the ankle, particularly in a peripheral-vascular clinic such as that at the University Hospital, Ann Arbor, or, to a lesser extent, that at the Alexander Blain Hospital. In establishing a diagnosis in these patients, one frequently elicits a history of old and inadequately treated ankle sprain.

In military orthopaedic centers, one finds differing policies in the management of both the chronic and the acute sprains. In one center, treatment will be individualized, which, in our experience, is fine provided all patients are seen by an experienced surgeon. In another center, all sprains are treated utilizing walking casts after the subsidence of edema, which, in our opinion, is a more realistic policy because of the varying degrees of skill of medical personnel. As a result of this latter policy, all military personnel are returned to duty early but with good immobilization of their injured ankles. After four to six weeks, the walking cast is removed and 80 to 90 per cent of patients will require no further treatment other than possible brief employment of an elastic bandage. A fraction of the remainder will require further casting, manipulation, or, rarely, operative repair of ruptured ligaments.

As a result of the described University Hospital and military experience, we have arrived at the conclusion that most ankle sprains should arbitrarily be treated alike and with the application of walking casts. We believe that this arbitrary policy should particularly apply in teaching hospitals, where many sprains are treated by internes and residents, and also in the offices of general practitioners. Many of the late complications seen by us are the result of initial inadequate immobilization instituted in the offices of physicians located in the skiing centers of northern Michigan. Almost invariably, these patients are lost to long-term follow-up by these physicians.

It should be apparent that local infiltration with Procaine, hot and cold applications, and use of crepe bandages, will not suffice in the treatment of many sprains. On the other hand, prolonged hospitalization and the use of crutches or complete bed-rest results in considerable loss of time and money. The use of adhesive tape, as advocated by Gibney, is time-consuming, often inadequate, frequently difficult, uncomfortable, and may cause skin injuries. Although application of a cast has been recommended in the past by many orthopedists in occasional cases, in practice it is more often avoided except in the presence of associated fracture.

In 1943, McMaster reviewed over 500 cases of ankle sprain in Army personnel and concluded that patients who received no local treatment, or were given elastic bandages for support and returned to normal activity, had better results than those who were immobilized. Unfortunately, his follow-up study was limited and is not supported by our own long-term observations. Watson-Jones states that an ankle sprain is frequently associated with partial dislocation of the talus. This dislocation is momentary with activity or walking, but goes into spontaneous reduction on rest. This may explain why, over the years, so many patients have suffered intermittent disability and recurrent dislocations and edema. Indeed, some patients complain that they would rather have had a fracture than a simple ankle sprain.

At one extreme are sprains which are regarded as minor injuries and are treated as such by strapping support and early mobilization, with frequent resultant morbidity. At the other extreme, one sees the relatively more severe ligament injury treated by

operation and repair of the laceration under direct vision. We believe that operation should be reserved for lacerations of the deltoid and tibiofibular ligaments. They are, therefore, beyond the scope of this discussion.

We have applied a plaster cast with walking device in almost 700 acute and chronic ankle sprains within the past 12 years. If the swelling is marked, hospitalization with bed rest, cold applications, and elevation of the foot are employed until the swelling subsides. We then apply a walking cast extending to below the knee and, after one day, the patient is returned to activity or employment with the injured ankle protected by maximum immobilization. The patient has been kept in the walking cast for a period of four to six weeks.

Because of the nature of practice in a group clinic and hospital, we have had the opportunity of following many of our cases for long periods of time. The residual disabilities when this policy is followed are minimal, and the technique is time-saving for the patient and the physician. We have had no difficulty in convincing patients of the necessity of applying a cast even though there is no associated fracture. Although such an arbitrary policy involves the unnecessary application of a cast in some ankle sprains, our results indicate that such treatment is superior to the usual methods of management.

Conclusions

1. A plea has been made for more careful attention to the seriousness of simple sprains of the ankle.

2. A wider use of the walking cast in the treatment of ankle sprains is advocated.

3. Advantages in the use of walking casts for sprains of the ankle are presented. These are based on a 12-year experience in the treatment of almost 700 patients with this injury.

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Activity Prescription

American men can remain fit if, throughout their lives from college years to age 80, they spend 30 minutes daily in an active sport or physical activity, followed by three minutes of calesthenics to assure exercise of the whole body. From this standpoint Dr. Warren Guild of Boston said that generally desirable activities include walking, kicking, dancing, bicycling, swimming, rowing, running. Little or no sustained physical demands are required by golf, static hunting, fishing, archery, auto racing, bowling, table tennis and yachting, he remarked. Exercising is more important for men than women who if they "do their own housework can get the physical activity they require."—*GP*, October, 1961.

Evaluation of the Head-Injured Patient

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THE NEED for prompt and accurate recognition of specific disease entities is, of course, universal in the practice of medicine. Nowhere, however, is it of more importance than in the management of the patient who has sustained a head injury. The full course of a surgically remediable situation may lead to a fatal termination in a matter of a scant few hours if unrecognized. It is the purpose of this paper to present in a concise manner a method of appraising the type of intracranial lesion present in an injured patient and consequently to institute the proper treatment.

The just criticism of over-simplification may be levelled at the following schema but the inaccuracies in them, we believe, are outweighed by the ease with which they can be applied to any particular case. It might be pointed out, at this time, that any complete neurologic diagnosis will contain both the site and the nature of the lesion. In this presentation, we are concerned only with the pathologic process and NOT its anatomic location. Consequently, no mention will be made of the various lateralizing neurologic signs which should be also sought.

General Considerations

The principle advanced by Hughlings Jackson,[1] known as "dissolution," applies, in a general way, to the patient who has sustained an injury to the brain. This doctrine holds that in diseases of the brain, functions become impaired inversely to their appearance in the development of that organ in the phylogenetic scale.

Consequently, one would then expect disturbances in higher intellectual functions to appear first with deterioration of vital vegetative processes last. To a large degree, this principle applies to head injuries. For the sake of simplicity, the various stages of cerebral compromise may be arranged on a vertical axis and termed the "scale of neurologic dissolution" (Table I). It may be seen that the lower on the scale the condition of the patient, the more serious the situation. Most of these terms are self-explanatory, but the differentiation between "stupor" and "coma" should be made. A stuporous patient is one in whom stimulation of some type will evoke a voluntary response, while the comatose patient responds to no stimulus. It is obvious that if the patient is ascending this scale, he is making some degree of recovery, but if the trend is in a downward direction, then his condition is failing and some type of surgical intervention may be mandatory. These changes possibly represent an index of cerebral anoxia. If to this vertical axis a horizontal co-ordinate is added, upon which the passage of time is measured, a graph may be made which reflects the clinical course of head injuries.

TABLE I. THE SCALE OF NEUROLOGIC DISSOLUTION

1. Lucidity
2. Intellectual Impairment
   (a) Loss of Judgment
   (b) Memory Disturbances
   (c) Confusion
3. Irrationality
4. Stupor
5. Coma
6. Changes in Vital Signs
7. Death

Specific Considerations

Non-operative Lesions.—The first of the non-operative groups of head injuries to be considered is cerebral concussion. In the strict sense and for working purposes in this paper, we shall consider that the term "cerebral concussion" implies the transient loss of consciousness following a blow to the head with no apparent objective residual. The graphic representation of this condition may be seen in Figure 1. This patient rapidly descends the scale and almost as rapidly returns to the state of lucidity. This condition requires no immediate treatment, and the prognosis is usually quite good.

The clinical entity which may be termed "cerebral contusion" is illustrated by Figure 2. As the term "contusion" implies, there is usually actual bruising of the polar cortical areas, and since this re-

presents a more serious injury, the patient with this entity remains further down on the scale of dissolution for a longer period of time than the patient with the cerebral concussion. Somewhere in the clinical course

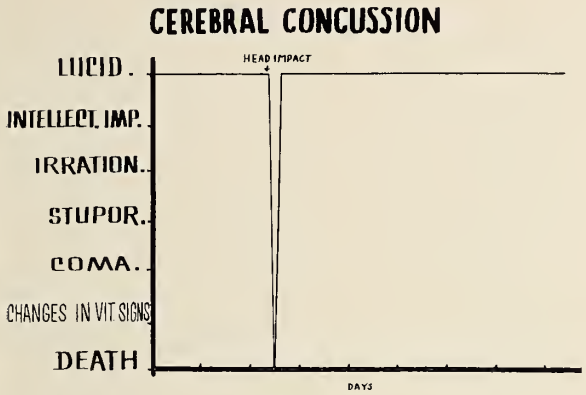


Fig. 1.

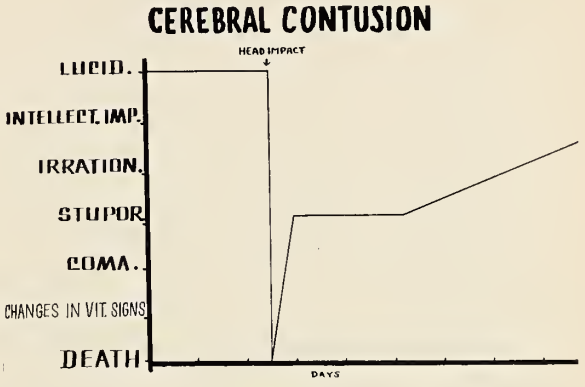


Fig. 2.

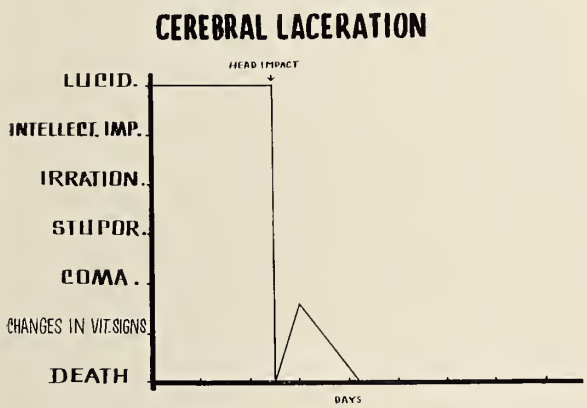


Fig. 3.

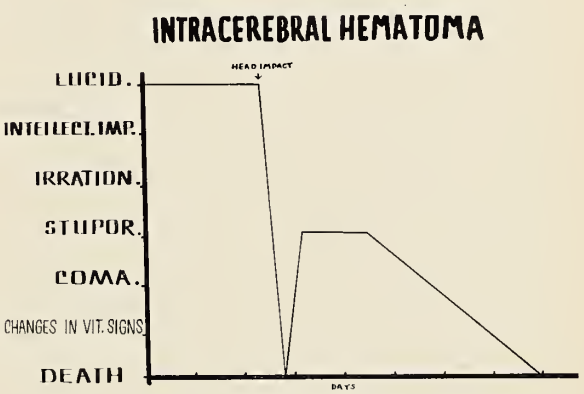


Fig. 4.

of this patient, an ascent on the scale may become evident signifying improvement, or deterioration may become manifest by a downward course. This reflects either a progression in brain swelling or the co-existence of a mass intracranial lesion.

The third group under non-operative lesions may be termed "cerebral laceration," and this term implies a serious, almost uniformly fatal lesion secondary to actual disruption of brain substance. It mirrors the magnitude of the original force of injury. As may be seen in Figure 3, this patient sustains a head impact and is knocked unconscious and remains very low on the scale of recovery. In all probability, he arrives at the hospital emergency room deeply comatose, possibly with changes in vital signs and the situation progresses to a fatal termination within a relatively short period. Supportive care is all that is indicated for these patients.

Operative Lesions.—Intracerebral hematoma is the first operative lesion to be considered here. Intracerebral collections of blood following a blow to the head may result in the fusion of multiple small hemorrhages or from the laceration of a cerebral vessel at the time of impact. The clinical picture is variable, although early in the development of the lesion the patient is likely to behave like a patient with a cerebral contusion with subsequent deterioration (Fig. 4).

Since the clinical behavior of epidural hemorrhage and acute subdural hematomas are identical, they may be represented by one graph (Fig. 5). Both of these lesions stem from rapid accumulation of blood in the extra-cerebral intracranial spaces and the development of the syndrome is a rapid one. These patients sustain a head injury, are usually knocked unconscious and, by the time of their arrival at the emergency room, are conscious, lucid and asymptomatic. Since the epidural hemorrhage is thought to evolve from a torn middle meningeal artery or vein, a linear skull fracture in the temporal area may be evident. Re-

covery from the original period of unconsciousness, however, is likely to be brief, and within the matter of a very few hours a rapid decline is apparent. There may be a quick transition from a perfectly

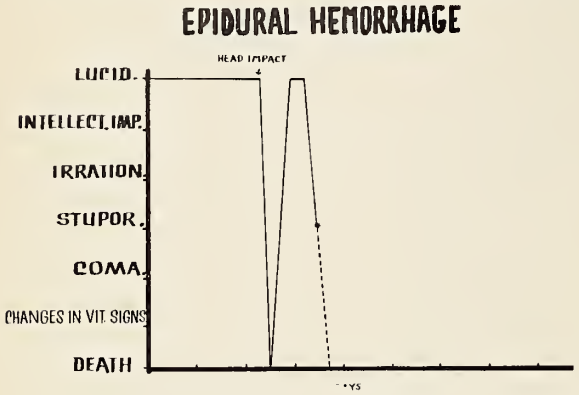


Fig. 5.

conscious lucid individual to one who is comatose in a short time. This constitutes a real surgical emergency and appropriate surgical therapy must be instituted if the patient is to be saved. If the surgical intervention is prompt enough, early complete recovery is the rule. The dotted line represents the projected course of the patient not operated upon.

The final consideration in this group is that of chronic subdural hematoma or subdural hygroma. Since these patients are clinically indistinguishable, they are considered together. The chronic subdural hygroma, of course, is a subdural collection of fluid rather than blood clot. As may be noted in Figure 6, the development of clinical maturation of these lesions is likely to be slower than those discussed previously. Classically, the patient with the chronic subdural hematoma sustains his original head injury without residual, and some ten days to four weeks later, he manifests the first signs of a gradual decline on the previously mentioned scale. At first, he may complain of headaches, manifest confusion followed by irrationality. He then slips into a stuporous state and, if the lesion is undiagnosed, will progress to complete coma followed by changes in vital signs. It is a common misconception that the patient with the chronic subdural hematoma has continued to bleed actively during his period of deterioration. It is, rather, osmosis[2] which leads to his difficulties. When the clot present in the subdural space begins to liquefy, it begins to draw fluid in from the subarachnoid space across the arachnoid membrane or

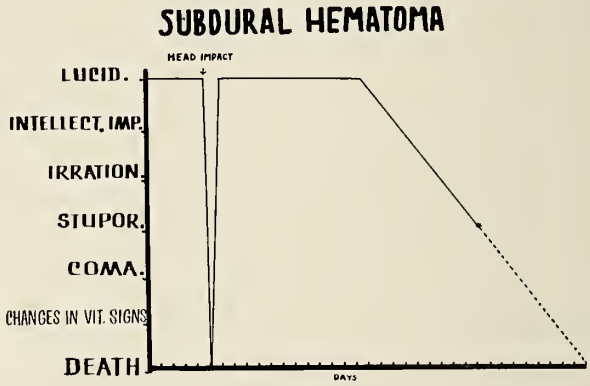


Fig. 6.

from adjacent capillaries due to its high protein content. This process proceeds until it is incompatible with neurologic normality and, at this point, the patient manifests signs and symptoms of an expanding mass. Prompt recognition of the problem followed by the proper surgical treatment in most cases, will cause the patient to reverse his downward trend and again become lucid. It might be pointed out at this time that the actual methods of surgical treatment in these lesions are beyond the scope of this paper. If these details are desired, a neurosurgical text book should be consulted.[3]

Summary

A method by which the patients with head injuries may be evaluated is presented. Clinical entities are divided into six groups, and the course of these lesions is represented on graphs with neurologic condition on one co-ordinate and the passage of time on the other.

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A Tracheotomy Program

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THERE ARE three life-threatening catastrophes—hemorrhage, unexpected cardiac arrest and airway obstruction, which demand immediate and specific treatment. Recent advances in the management of cardiac arrest place the treatment of this disaster in an equally satisfactory category with that of hemorrhage. Unfortunately, the recognition and treatment of airway obstruction has not attained this degree of development as there remains considerable disagreement concerning the indications as well as the methods for surgical restoration of the airway.

This discussion is not concerned with the equally important but non-surgical management of the obstructed airway which includes removal of foreign material from the oropharynx, insertion of oral airways, and mouth-to-mouth or mouth-to-nose resuscitative breathing. For the purpose of this presentation, it is assumed the airway problem demands consideration of the tracheotomy because the preceding measures have proven inadequate.

Indications

Theoretically, any patient developing signs of impaired ventilation due to obstruction, whether laryngeal, tracheal, bronchial or bronchiolar in origin, should be considered for tracheotomy. Surgical restoration of the airway must be performed occasionally for aspiration of a foreign body into the larynx, or tracheal compression by an extrinsic mass, however, the majority of patients who will be considered for this procedure are those experiencing obstructed ventilation due to difficulty in clearing their tracheobronchial tree of secretions. *Each time a necropsy examination on a postoperative patient demonstrates that bronchial pneumonia or atelectasis was the most likely cause of death, the question of whether tracheotomy should have been employed can be logically asked.* In the most frequent clinical situations, chest wall trauma, aspiration, loss of consciousness, recent surgery, paralysis or impaired pulmonary function due to parenchymal fibrosis are contributory factors which prevent the patient from maintaining a patent airway. The cardiac surgical patient with excessive endobronchial secretions and reduced pulmonary function secondary to long standing pulmonary hypertension exemplifies an indication for elective tracheotomy at the conclusion of a primary operation.

Reluctance to perform tracheotomy may be based on fear of the mortality incident to the procedure or dissatisfaction with the management of previously experienced post tracheotomy problems. Both of these reasons have constituted valid objections in the past, but may be largely dispelled by an enlightened tracheotomy program. A life-saving procedure such as tracheotomy should not be accompanied by a significant surgical mortality, however, the tragic complications such as esophageal perforation, carotid artery injury and tension pneumothorax which are reported in reviews of large series of tracheotomies, lend substance to this objection.[1-5] When the circumstances surrounding many of these operative procedures are considered, it is apparent that emergency tracheotomy is frequently performed on a severely hypoxic subject under the most trying of circumstances. Working under the unsatisfactory conditions existing in the patient's room, the operation is commonly attempted by inexperienced personnel, working with poor lighting and equally poor assistance and exposure. The delay in establishing an airway under these circumstances may be more than adequate to increase existing hypoxia sufficiently to result in a mortality. A program which transfers tracheotomy under these circumstances to a well ordered operating room procedure will eliminate this source of mortality and may be readily accomplished by insertion of an endotracheal tube, aspiration of the airway and transportation of the patient to the operating room. The objection may be raised that the equipment and skill for tracheal intubation may not be available; however, it is reasonable to assume that many physicians embarking upon the operation of tracheotomy do possess the ability to insert an endotracheal tube with a laryngoscope. Lack-

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ing this knowledge, the services of an anesthetist or other physician with intubation experience may be solicited. Should the occasion arise which demands an immediate restoration of the airway in the absence of this equipment or experience, it is proposed that cricothyroidotomy be performed rather than tracheotomy. As will be subsequently described, this maneuver does not require special surgical equipment or operative experience. The net result of this overall attitude toward surgical restoration of the airway is abandonment of conventional tracheotomy in the patient's room.



Fig. 1. Diagrammatic representation of the surface anatomy for use in performing cricothyroidotomy. The tracheal lumen is separated from the skin by a fibrous membrane which is devoid of neurovascular structures. This procedure is recommended for emergency surgical restoration of the airway outside of the operating room.

Dissatisfaction with the management of postoperative problems may be largely eliminated as an objection to more wide spread use of tracheotomy by adequate humidification and proper aspiration techniques. A management program, only portions of which are original, will be described that has been found to be highly satisfactory for the care of a patient with a tracheotomy.

Method

Cricothyroidotomy.—The use of this simple maneuver which may be performed with any available nonsurgical cutting instrument, is particularly suited to true emergency restoration of the airway outside of the operating room.[6] This easily palpable space separates the thyroid and cricoid cartilages and may be rapidly located as a slight concavity below the thyroid cartilage. Since this region is devoid of vascular structures, a bold incision into it may be performed without hesitation (Fig. 1). The opening may be temporarily maintained with a fountain pen barrel or the instrument used to incise the skin. If tracheotomy is required for longer than a one or two day period, conventional low tracheotomy below the cricoid cartilage is desirable as an elective procedure.

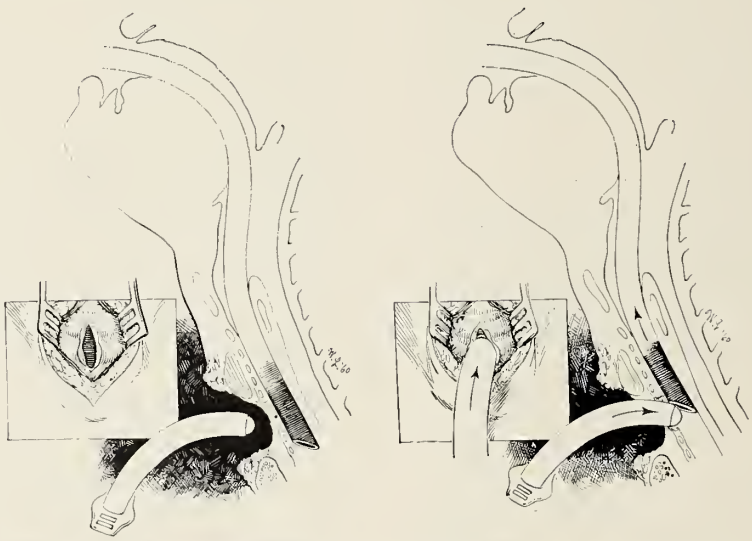


Fig. 2. (a) Urgent tracheotomy: control of the airway in the operating room through an endotracheal tube while the tracheotomy incision is made. (b) Simultaneous withdrawal of the endotracheal tube and insertion of the tracheotomy cannula.

Urgent Tracheotomy Over an Endotracheal Tube.—This procedure may be performed with the same unharried care as an elective tracheotomy. Intubation is performed using topical anesthesia or without anes-

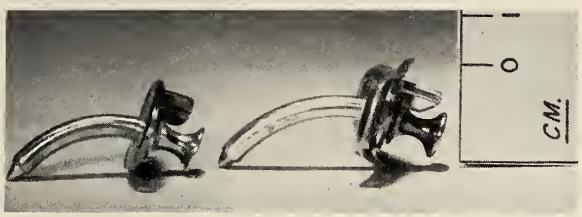


Fig. 3. Regular length and short tracheotomy cannulas for use in infants and small children.

thetic preparation if the situation is very urgent. A short transverse skin incision is made under local anesthesia and the endotracheal tube which may be visualized through the excised tracheal window, is withdrawn to a point just above this area by the

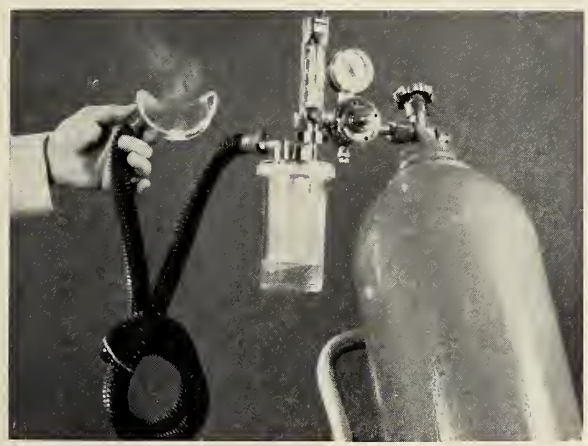


Fig. 4. Tracheotomy shield for humidification and administration of oxygen. The use of this shield in conjunction with an efficient nebulizer is begun immediately after tracheotomy.

anesthetist as the surgeon simultaneously inserts the tracheal cannula (Fig. 2a, b). By means of this combined effort, the airway is under absolute control at all times. Short tracheotomy tubes are preferred for infants and small children to avoid cannulation of one of the main stem bronchi (Fig. 3). Previous experience with a disaster produced by postoperative dislocation of a cannula has prompted use of a plain catgut suture to secure the cannula flange to the alar fascia when carrying out tracheotomy in the small child.

Postoperative Care of Tracheotomy

Due to difficulties which may be encountered during reintroduction of the tracheal cannula through a fresh wound before a fistulous tract has formed, it is recommended that the tube not be changed for several days. If a cannula change is required within the first five days, manipulations will be performed with the greatest safety if the patient is returned to the operating room theater where adequate facilities are at hand. The author is aware of at least one fatality precipitated by inability to reinsert a tracheal cannula under the

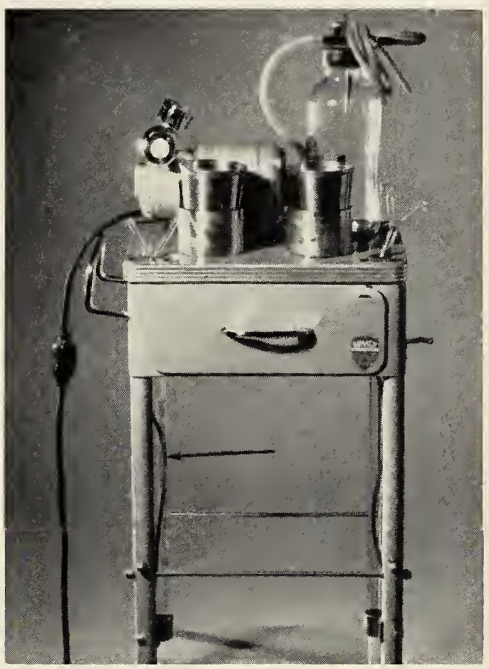


Fig. 5. A conventional portable suction apparatus has been modified to permit sterile storage of suction catheters between aspirations. The catheters are hanging in a plastic cylinder of bactericidal solution *(arrow)*.

poor lighting and exposure conditions which attended performance of this procedure in the patient's room.

Inspissation of secretions in and about a tracheal cannula with formation of occluding crusts and plugs is the single most important postoperative problem following tracheotomy. Through the use of newer humidification devices, such as plastic tracheotomy shields, nebulizers, saline drips into the cannula and efficient cold humidifiers, it is now possible to virtually eliminate this complication (Fig. 4). Humidification may begin immediately after tracheotomy using the shield and continued by means of a cold humidifier in the patient's room.

Introduction of secondary infection into the tracheobronchial tree may result from the use of contaminated aspirating catheters. In order to facilitate use of clean, if not sterile suction equipment, a simple modification of existing portable suction devices has been constructed which permits catheters to be kept in a germicidal solution between aspirations (Fig. 5). This efficient arrangement which was devised in the Department of Nursing, Henry Ford Hospital, prevents inoculation of the tracheobronchial tree with organisms which may contaminate the catheter if it is dropped on the floor or otherwise soiled. To minimize tracheal trauma, the smooth tip of an aspirating plastic or rubber catheter is preferred, rather than one which has had the tip cut off with resulting production of a firm, sharp edge. The catheter should have only an end opening in order to deliver maximum aspirating efficiency.

Summary

1. Tracheotomy should be performed with greater frequency on patients with thoracic trauma, loss of consciousness, aspiration, paralysis, poor pulmonary reserve or recent surgery, who have difficulty in clearing their tracheo-bronchial tree of secretions.

2. A significant mortality rate which has accompanied tracheotomy and the postoperative problems secondary to inspissated secretions, have been objections to more frequent performance of the procedure. A tracheotomy program is offered which will eliminate most of these objections. True emergency tracheotomy should be replaced by cricothyroidotomy while urgent tracheotomy is best performed over an indwelling endotracheal tube in the operating room. A program of postoperative management based on adequate humidification is presented to eliminate complications secondary to inspissation of endobronchial secretions.

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Wayne Symposium on Blood Hears Texas Researcher

A University of Texas researcher disclosed a method of determining carriers of hemophilia type B at the recent 10th annual Symposium on Blood sponsored by Wayne State University's College of Medicine.

Ted P. Bond, M.D., reported the efforts of a research team headed by M. Mason Guest, M.D., at the University's medical branch in Galveston, Texas. Guest was formerly an associate professor of medicine at Wayne State. His report disclosed a method of determining the carriers of the disease which affect 15 per cent of all hemophiliacs. He said his laboratory used a modification of a blood clotting test which employs a soybean extract. The samples from carriers of hemophilia B always showed a deficiency of a protein compound found in normal blood.

Three of the papers disclosed the purification of blood elements for the first time. M. P. Esnouf, M.D., Oxford, England, told of the purification of Bovine Factor Ten. Marion I. Barnhart, M.D., Detroit, disclosed the isolation of Prothrombin-R. Ariel G. Loewy, M.D., Haverford, Pa., told of the purification of Fibrinase, an enzyme in blood which aids in clotting.

Use of Pedicle Flaps in Acute and Chronic Trauma of the Lower Extremity

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AMONG the most perverse turns of nature is the provision of scant circulation and healing qualities to an area exposed to repeated trauma such as the leg and foot. If the trauma is severe, the individual is fortunate in that the management of his wound is aggressive and usually results in sound healing. When the trauma is of lesser degree and the management less aggressive, the resulting healing by scar results in an unstable surface. The scarred extremity is often ulcerated by minimal trauma. These repeated minimal injuries can be healed by bed rest, elastic support, and topical medicaments. The morbidity and time lost from gainful employment can mount to an appalling degree, and the extremity becomes an increasing liability.

It is at this juncture that complete scar excision down to normal tissue and a split thickness skin graft can restore an extremity to normal status. Unfortunately, some patients have scarring which is so extensive that removal exposes bone or tendon. A skin graft can produce a closed wound, but in such circumstances the graft will not stand up under normal usage and will be as readily injured as the scarred surface. If the graft does not interfere with function of tendons or joints, its stability can be improved by abrading the graft surface and overgraft with an additional split thickness skin graft. However, in most situations of this type, pedicle flap cover should be planned and executed. Local flaps are always preferable when feasible. The precarious nature of the circulation of the leg and foot make delaying operations on the flap tissue desirable. It is important to remember however, that the leg is a truncated cone and rotation of flaps are not as readily carried out as on plane surfaces.

Large tubed pedicle flaps can be utilized but their preparation and transfer usually consumes several months. Crossed extremity pedicle flaps offer a relatively rapid method of accomplishing the desired result. This type of flap offers large amounts of tissue and minimal risk to the extremities involved. It has several disadvantages beyond the three to four weeks of unpleasant positioning of the extremities; hence its relegation to the status of the last resort. The flap tissue obtained in this manner is slow to obtain protective sensation, up to two years in some cases. During this period of hypesthesia, considerable care must be exercised by the patient to prevent injury and ulceration. Secondly, the joints of the knee and ankle of the extremity may be several months in obtaining a full range of painless motion. The joint stiffness is more severe in the older patient or in the patient whose joints are placed in extreme positions during the transfer period. On the positive side, this type of flap offers almost unlimited amounts of tissue which give permanent trouble-free cover when sensation returns. These flaps offer the only satisfactory cover for open joints, fractures or when further bone and joint surgery is anticipated in the injured area.

The preparation of such a flap for transfer requires delaying procedures on the flap tissue. The object of these efforts is to increase the circulatory efficiency of the flap. The delaying procedure usually consists of outlining the flap by incisions except for two to four small bridges. The flap may be undermined wholly or in part at this step depending on the circulation. The bridges are cut from five to 10 days later. The flap is considered ready for transfer at about the twenty-first day.

In acute trauma, it becomes mandatory at times to use immediate pedicle flaps to preserve an extremity or save valuable length, and we do not hesitate to utilize them in this manner. If possible, however, we elect to close the wound with a split thickness skin graft and carry out a delayed flap with its enhanced blood supply and better chance of flap survival.

These points are illustrated with several cases of varying nature with emphasis on why each case was so managed rather than the technical details.

Case Reports

Case 1.—A 31-year-old white man with massive avulsion of sole of foot exposing calcaneus. Management consisted of split thickness skin graft cover of wound and delay of a large thigh flap at initial surgery 18 hours post-injury. Twen-

Presented in part at the 1960 meeting of the Michigan Chapter, American College of Surgeons, Flint, Michigan.



Fig. 1. Case 1. *(above)* Avulsion of sole and lateral aspects of heel. *(below)* Flap healed in position.



Fig. 2. Cross-thigh position used in Case 1.

ty-one days later, the flap was attached to the foot. The flap was transferred on the twenty-sixth day after attachment and final insetting was accomplished four days later. The patient was up on crutches three weeks after transfer of flap and was allowed to walk without crutches four months from the day of injury. Normal range of motion returned to all joints approximately one month after flap transfer. Sensation was adequate in 18 months.

Pedicle flap cover was elected to give adequate cover of exposed calcaneus. A split thickness skin graft would have sufficed as a weight bearing surface on the areas with adequate soft tissue padding but would not suffice over the exposed bone. A delayed flap was elected because of the large surface to be covered and the twisting and kinking anticipated to make it conform to the three surfaces to be covered.

Case 2.—A 54-year-old man who suffered electrical burns to the foot from a 7500-volt power line. At initial debridement on the fourteenth day post-injury, all toes were sacrificed. The lateral four were filleted to cover the metatarsal heads. The great toe was completely destroyed and coverage of the first metatarsal was obtained by an immediate cross leg flap. This was separated on the twentieth day, and walking was permitted two weeks later. Range of joint motion was normal in three weeks postoperatively.

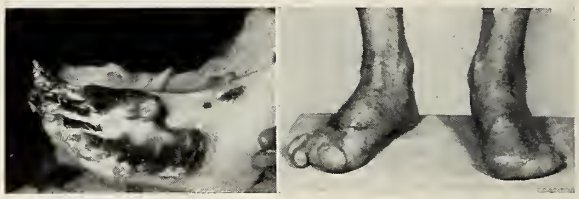


Fig. 3. Case 2. *(left)* Foot 14 days after 7500 volt electrical burn. *(right)* Flap healed in position. The lateral four toes have been converted into flaps to cover metatarsal heads.

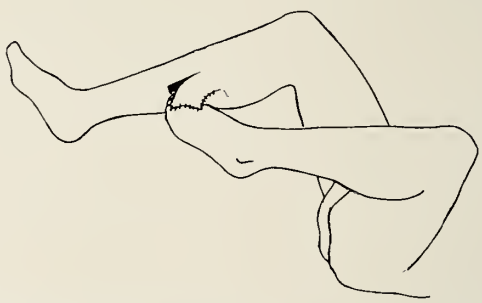


Fig. 4. Position of immediate cross-leg flap used in Case 2.

Flap cover was elected in this instance to preserve the normal length of the first metatarsal which is essential to normal weight-bearing. Immediate rather than delayed flap cover was elected because a delaying procedure would have necessitated removal of cartilage from the first metatarsal and opening the bone to potential infection in order to successfully skin graft the exposed bone.

Case 3.—A 17-year-old man with a compound fracture of the calcaneus. The fracture had been reduced and immobilized by screw fixation. Soft tissue breakdown occurred with resultant exposure of the screws and fracture line. He was referred for management two months post-injury. At initial surgery, the screws were removed, a thin, split-thickness skin graft applied to the wound, and a flap was delayed on the opposite anterior thigh. Fifteen days later, the flap was attached. The flap was transferred after an additional 21 days. Walking was permitted in two weeks. It required four months to obtain normal knee motion.

A flap was elected in this case because of the non-union

and the anticipated bone surgery on the calcaneus. A split-thickness skin graft would produce an excellent result in this wound if bony union was satisfactory. The cross thigh position was chosen over the cross leg because of the more reliable blood supply. In a patient of this age, prolonged joint problems from this position are unusual. The flap was delayed to improve its chance of success. The delaying operation was probably unnecessary in a flap this size from the thigh, but it added a margin of safety in a lesion where no haste was indicated.

Case 4.—A 38-year-old man with a chronic ulceration over achilles tendon which resulted from a severance of this

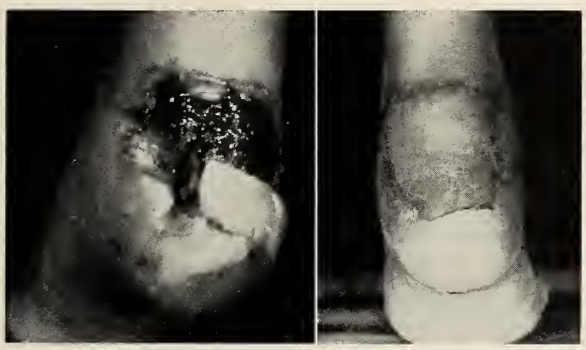


Fig. 5. Case 3 *(left)* Compound fracture of calcaneus. *(right)* Flap healed in position.

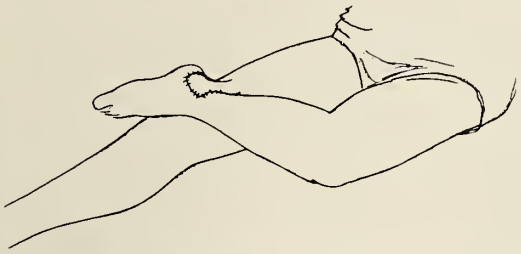


Fig. 6. Cross-thigh flap showing relatively extreme knee flexion, used in Case 3.

tendon 20 years previously. The tendon had been repaired and infection ensued. The skin had broken down once or twice yearly since original healing and had ulcerated three weeks prior to admission. An attempt to excise and close the ulcer failed. An attempt was then made to close the wound with a skin graft; this failed because of extensive scarring of the underlying tendon. A flap was delayed and attached 26 days later. The flap was detached on the twenty-third day after attachment. Guarded weight-bearing was commenced in 10 days. Full weight-bearing was delayed for two months because of extensive removal of the infected tendon at the time of flap attachment.

A flap was selected in this case as the prospect of healing by graft would have necessitated undue sacrifice of the achilles tendon to obtain a satisfactory surface for the graft. The flap was delayed, as we are especially reluctant to utilize a flap below the knee without delaying procedures. The cross-leg position was chosen because it engenders less knee stiffness than the cross-thigh position. A 38-year-old man has already reached the point wherein a cross-thigh position could be disastrous.

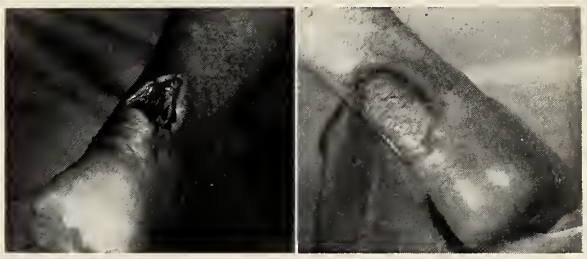


Fig. 7. Case 4. *(left)* Chronic ulceration of heel exposing necrotic achilles. *(right)* Flap healed in position.

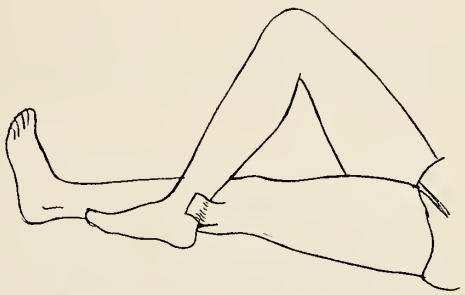


Fig. 8. Position of cross-leg flap used in Case 4.



Fig. 9. Case 5. *(left)* Chronic osteomyelitis of tibia. Note adjacent scarring and stasis dermatitis. *(right)* Flap healed in position. Stasis changes in leg considerably improved by resultant scar release.



Fig. 10. Position of cross-leg flap used in Case 5.

Case 5.—A 67-year-old man with chronic osteomyelitis following a compound tibial fracture 16 years previously. The wound had drained and healed intermittently since the injury. The wound had drained continuously for three months prior to admission. A cross-leg flap was designed and delayed. The flap was attached 15 days later and transferred 25 days after attachment. Walking on crutches was begun 10 days after transfer. The knee was extremely stiff, although it had been flexed to a minimal degree, requiring seven months to restore normal range of motion.



Fig. 11. Case 6. *(left)* Compound fracture of tibia with loss of tibial crest and quadriceps insertion. Note delayed flap on opposite calf. *(right)* Flap healed in position. Satisfactory union of tibial fracture has occurred. Position of cross-leg flap same as in Case 5.

A flap was elected in this case as it was felt that saucerization of the tibia and skin graft would control the osteomyelitis of the tibia but would not secure the scar release necessary to prevent further soft tissue breakdown. The cross-leg position was selected as it offered adequate tissue with minimal threat to joint function. The maximum knee flexion in a man this age can be kept in a range that will not prevent walking even if totally fixed postoperatively.

Case 6.—An 18-year-old man who suffered a compound fracture of tibia with loss of upper tibial crest and portion of quadriceps tendon. He was seen two months after injury, with an open draining tibia and delayed union. A delaying procedure was done and the tibia wound was largely closed with a thin skin graft. A second delay was carried out to gain additional flap length nine days later. The flap was attached 29 days after the initial procedure. The flap was transferred 16 days after attachment. Motion was normal in the donor leg in two weeks.

Flap cover was elected in this case because of a bone graft and tendon surgery was anticipated. The cross-leg position was utilized because it could be safely positioned without disturbing fracture alignment. Solid bony union occurred as is often the case with improved circulation and control of infection by the flap.

Summary

Closure of acute and chronic wounds of the leg and foot have been discussed. The thigh has been excluded, as we have not encountered any thigh wounds that could not be effectively closed by use of skin grafts or local tissue. We have utilized common problems necessitating pedicle flap wound closure and attempted to indicate the general principles involved in the use of such flaps.

We believe that the crossed extremity flap is an excellent method of obtaining pedicle flap tissue in large amounts at minimal risk. Its disadvantages are joint stiffness which is akin to that seen after major long bone fractures.

Chronic Alcoholics

Neither a summary dismissal nor unending tolerance are proper solutions for the problem of chronic alcoholics in business and industry, says a University of Michigan psychiatrist.

Robert A. Moore, M.D., said it is "unfortunate" that so many people consider alcoholism as a moral issue rather than a problem of health. He called chronic alcoholism a serious and expensive public health problem, with particular effect on the profits of business and industry.

Writing in the "Michigan Business Review," Dr. Moore recommended close cooperation between the medical department, management and union to encourage "prompt and realistic disposition." He suggested a probationary period while the employee undergoes a rehabilitation program including psychiatric counseling, medical care and the use of other appropriate company and community resources.

Blunt Abdominal Trauma In Infants and Children

F. A. Arcari, M.D.
Detroit, Michigan

FOR a variety of reasons, it is difficult to differentiate the surgical from the non-surgical abdomen in infants and children subject to abdominal trauma. The literature contains few articles relative to this particular problem.[1] In infants, the inability to communicate makes for the major portion of the difficulty in arriving at a correct diagnosis; in older children, fright may be the most important barrier in attempting to evaluate accurately the signs and symptoms present.

The usual findings associated with the non-traumatic, acutely distressful abdomen necessitating surgery, namely; abdominal tenderness, guarding, rigidity, distention, absent bowel sounds, et cetera, may be present in all patients subject to abdominal trauma, regardless of the presence or absence of a traumatized intra-abdominal viscus (ruptured liver or bowel). On the other hand, it is possible to have a ruptured spleen displaying minimal local and systemic findings. The purpose of this study, then, is an attempt to define those signs and symptoms and ancillary investigations that will help in the differentiations of the non-surgical from the surgical abdomen in the child subject to trauma.

In pursuing this study, the records of 77 children, 12 years of age and under, subject to blunt abdominal trauma, who were admitted to Detroit Receiving Hospital during the years 1950 to 1960, were examined. Twenty-seven of these children had multiple injuries, including skull, limb and chest, in addition to the abdominal trauma. Thirty-three patients were subjected to an abdominal surgical procedure, and five died. Forty-four patients had no surgery; there were no deaths in this group. Of the 33 subjected to surgery, 17 proved to have ruptured spleens; one of these died, this child having multiple other injuries including intra-cranial damage. Seven children had ruptured livers, four died. Five children had severe damage to the genito-urinary tract; of the remaining four, one had ruptured bowel, one had ruptured diaphragm, and two patients had intra-abdominal bleeding due to lacerations of the mesentery. Of this group of 77 children, more than 50 per cent were the victims of automobile or truck accidents. Some of the children gave histories of relatively minor abdominal trauma (being hit in the abdomen with a softball thrown by another child) and yet proved to have severe intra-abdominal disease.

The usual signs and symptoms associated with a possible surgical abdomen, namely; abdominal pain, tenderness, guarding, rigidity localized or generalized, absence of bowel sounds, and the presence of abdominal distention were evaluated in this group of patients. While in some cases, one or all of the symptoms were present in varying degrees in the child who was subsequently proven to have a surgical abdomen, these combinations of signs and symptoms in their various degrees of severity were also present in children who were observed during hospital stays varying from two to seven days and discharged without a surgical procedure. It seemed, therefore, that further findings were necessary to aid more definitely in diagnosing the presence of intra-abdominal damage requiring surgical treatment.

Shock was present in 15 of the 77 cases on admission to the hospital. The writer accepted a description including the use of the term shock in the histories and physical examinations recorded in the charts, also blood pressures below 100 associated with pulse rates over 110 with or without the unconscious state. Fourteen of these 15 patients proved at surgery to have severe intra-abdominal trauma; six, ruptured spleens; six, ruptured livers, and two patients with severe renal parenchymal damage. The one exception in this group of 15 patients in shock on admission, who was not subjected to surgery, was noted to have gross hematuria on admission. Intravenous pyelograms revealed the presence of a perirenal hematoma. The child received multiple transfusions, was observed for two or three days, was subsequently stabilized, and was dis-

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charged from the hospital. None of the 44 patients discharged from the hospital without surgery, except for the one described above, had shock on admission or during their hospital stay. One must note, however, that of 17 children in this group of patients admitted to Detroit Receiving Hospital who proved to have ruptured spleen, 11 of the 17 had no evidence of shock on admission or prior to surgery.

Abdominal tap,[2] either one, two, three or four quadrant, is used frequently in the Emergency Room of Detroit Receiving Hospital in the evaluation of patients suspected of harboring traumatized intra-peritoneal viscera. Tap was performed on 31 of the patients of this group. Of the 15 previously mentioned patients admitted in a state of shock, the abdominal tap was positive in nine (red, non-clotting blood obtained at tap), and at surgery a traumatized intra-abdominal viscus was identified. There was a false negative tap obtained in three patients in shock. These patients, however, were subjected to surgery regardless of the negative tap, because of their shock state and proven to have suffered damage to spleen or liver. Three of the patients admitted in shock were not subjected to abdominal tap before surgery. Nineteen patients not in shock were subjected to abdominal tap; 15 of these with a positive tap, proved to have a surgical abdomen. In all of the 31 patients subjected to abdominal tap in this group, there were three false negatives previously referred to, and one false positive; at surgery, this latter patient displayed no serious intra-abdominal trauma. Two patients who were subjected to abdominal tap on admission, and in whom negative taps were obtained, but who were kept in the hospital because of continued abdominal pain, were tapped again, one at six days after admission, and the other at seven days after admission. In both instances, a true positive tap was obtained, and at surgery ruptured spleens were identified. Two infants who provided noteworthy examples of the value of abdominal tap, were siblings admitted at six-week intervals, with histories of ill health lasting from six to 10 days prior to admission. On admission, both patients looked very sick, febrile, apathetic, and had multiple small petechial hemorrhages over the abdominal wall. There was no history of trauma in either case, and on admission these infants were thought to be suffering from the effects of either a blood dyscrasia or septicemia. The workup was unsatisfactory until the surgical resident in each case performed an abdominal tap which was positive. At surgery, both infants proved to have ruptured livers; one patient died. No complications of abdominal tap were noted.

Of 24 patients admitted with evidence of gross hematuria, five were subjected to surgery. Two of these five had ruptured kidneys (one a case of ruptured cystic kidney), one a child with a massive perirenal hematoma, the final case being that of a ruptured urethra. The majority of children admitted with abdominal trauma and gross hematuria were discharged without surgery, 19 out of 24 patients. In most instances, the hematuria disappeared within two to three days. In two instances, it lasted seven and 10 days, and in one child 21 days.

Radiographs contributed little to the diagnosis in this group of patients.

Summary and Conclusions

1. It is difficult to make an accurate diagnosis of a surgical abdomen following abdominal trauma in infants and children.

2. Local abdominal findings; namely—tenderness, guarding, rigidity, or distention, and absence of bowel sounds are not of great help in making the differential diagnosis.

3. The history of abdominal trauma together with positive local abdominal findings, plus the presence of shock strongly indicates the presence of a surgical abdomen and a confirmatory abdominal tap should be performed.

4. In all suspicious cases, abdominal tap is a valuable adjunct to investigation.

5. Negative findings do not exclude a surgical condition; namely—absence of shock, negative abdominal tap, and normal radiographs.

6. Where the diagnosis on admission proves to be equivocal, the delay associated with observation appears not to have been associated with an increase in morbidity or mortality.

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2. Byrne, Ralph V.: Diagnostic abdominal tap. Western J. Surg. Obstet.-Gynec., 64:369, 1956.

Medicine and Politics

This is the year of decision. In November, there will be another election with all of the national House of Representatives to be elected and a third of the Senate. This is being written the day after President Kennedy gave his report to the Congress about the condition of the nation. The medical profession is primarily interested in his proposal for taking care of the aged under Social Security. We especially noted that now he says nothing about the "medical care"—it's the "health care," and he wants all the aged people taken care of under Social Security.

The King-Anderson Bill (HR 4222) has been under consideration. Groups have been organized to support it, including one headed by former Congressman Forand. The President urged that it be passed in this session of Congress. It is probably not necessary to repeat the particular parts of the Bill to which the medical profession objects, mainly the fact that it is an absolutely unfair piece of taxation, putting the government into the actual practice of medicine and paying for it—not through regular taxation from regular sources—but a tax on the first earnings of everybody who works and who is under Social Security.

The promoters are now referring to it as "health care," and very shrewdly, so they can deny it is "socialized medicine." There is little medicine in it. M.D. services in the hospital (such as pathology, radiology, anesthesia and physiatry) are included only as hospital service. It is a step in the door. It is hospital service and nursing service and almost everything except the actual payment of the doctor. If that should pass, it would be no trick at all to include the doctor as limited practice. Observers in Congress and of its activities in Washington and throughout the nation have commented about this Bill, that if it gets to the floor of the House before the elections, it will pass. This is where the medical profession is put on the spot.

Members of our profession, in general, have tried to keep out of politics. They have had their preventive medicine and health programs which they wish to have considered and have presented them. They have done a wonderful job. The practice of medicine twenty years ago and the practice of medicine today are two almost completely different situations. Advancements in medical knowledge and technology have been one of the marvels of the age. Our JOURNAL has been recording it over the years, and every time we produce a new number our wonder has increased, and our respect for the ability of the men who are practicing medicine and teaching it increases. These are the men who have added years to the average

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life of our public. They are also the men who, during the depression years, created the procedures by which more patients could secure their medical and hospital services on a reasonably assured and not too costly basis because they were spreading the whole cost over the whole community. These medical pioneers saved the situation and thwarted the very serious threat of compulsory health insurance by the government. Now we are facing another threat just as all inclusive and just as unwanted.

Predictions are that if this Bill gets to the floor of the House or the Senate, it will be passed. The medical profession must exert its influence *now* on our Congressmen, explaining our situation and our fears for the public in general, else the United States will follow the same deteriorating course as has been the case in so many other nations. Medicine in Michigan has demonstrated that it can secure consideration from its law-making representatives, if it will devote its united effort to that purpose. The time has come. Every resource we have must be enlisted to meet this challenge.

It is not a question of there being no way to take care of these underprivileged and under-income elderly people. The President, labor, and the politicians claim they must not be embarrassed by a means test. The Kerr-Mills Law can and does take care of them and is in operation in 36 states. It could be operating in the rest, if allowed to do so. It does have a "means test," but that should not be embarrassing as the vast majority of this particular group of people have been on relief and have been helped in one manner or another for years, some of them all their lives. As far as that is concerned, everyone who pays income taxes does undergo a means test and a rather searching one. Sometimes that is just as embarrassing as any testing being made by our social welfare department in determining whether any citizens qualify for the help provided by the state through use of the Kerr-Mills Bill. These people now can get and are getting vastly more than they would get through the administration's program which it is trying to force upon us. In Michigan, by Act of the Legislature, services are identical to those provided by Blue Cross and Blue Shield, which is a service and not a co-pay or deduction. The King-Anderson Bill imposes a deductible hospital charge of up to $90 and the laboratory, diagnostic charge, up to $20, and then fails to pay any actual medical doctors unless they are hospital employees.

National Politics and Legislation

There are a number of other suggestions which the medical profession can support and is supporting. One is the Keogh Bill, under which professional people could set up their retirement fund before taxes should be passed. A suggestion to our friends in Congress might help. The Johansen-Slagle-Kelleher Bill, which was introduced and which we previously mentioned, provides that persons who are carrying voluntary prepaid medical and hospital services may deduct that amount up to $100 from their income tax, when it is all worked out and ready to be paid. This would stimulate the use of prepayment programs and show a respect and consideration through the internal revenue program by giving that amount of credit. That is almost as much as those prepayment plans will cost.

Another item is the restriction on social security programs, in general, which provides that if a beneficiary works and gains over and above $1800 per annum, he loses his social security remittance. This restriction should be absolutely removed. It is ridiculous and uncalled for. If these older people continue working, they are continuing to support and contribute to the social security program. If it is an insurance, as we are assured it is, we can see no justification for cancelling payment just because a person earns a dollar or two over a certain arbitrarily fixed amount. Let's ask our Congressmen to remove that restriction.

In the state, we are having a Con-Con. A proposed new Constitution of the State of Michigan is being rewritten. The original setup under which this is being done was supposed to be non-partisan. We hope it will be non-partisan and that the representatives who are doing this work develop a Constitution which will be worthy of the State and the people.

We believe the Legislature could make some corrections in operating policy. For many years, as long as most of us can remember, the welfare departments have never paid the total amount for medical care to indigents. There is one glaring abuse. Persons who are on welfare or relief, persons who are being cared for by the government in any of its branches, by that very fact, cease to be indigents. Therefore, the total cost of taking care of them should be paid. That is not being done in many places in paying for hospital care. We believe the situation should be corrected. None of our hospitals should be

required to render their services to anybody under public support and relief for less than the actual cost of giving those services. This applies very particularly to hospitals where the actual cost of those services is a known fact and can be demonstrated.

The same complaint holds for some other services in which the legislature, or the departmental regulations, have fixed a ceiling above which the agency will not pay for services. Medical and health services have expanded so marvelously and are so all-inclusive that ceilings fixed on these services are very soon out of date. Such ceilings should be readjusted, not in the fixed dollar amount, but in an adjusted, considered and negotiated amount, so reasonable compensation can be given.

The McNerney Report

For the last couple of years, while it was pending and as it was finally released, we have generally been referring to this report as "The McNerney Report." About six months ago, some of our members had been referring to the report as "The U of M Study" of Hospital and Medical Economics, calling it for short, "The University of Michigan Study." To our mind this is not truly specific because the University of Michigan is making many studies on many topics, so THE JOURNAL MSMS has usually used the term "The McNerney Report" in our reporting.

At the Blue Shield (Michigan Medical Service) Board of Director's meeting on December 13, considerable discussion occurred on the reason for calling this report "University of Michigan Study" when it is a study that was made by Professor McNerney. The opinion of the committee was that officially it should be called "The McNerney Report."

Master Medical

There has been a demand by the public, in general, over several years for a certificate of "major medical" coverage. Many of those policies are on the market, with subscribers estimated in the millions. Our own members and our friends have been requesting such coverage.

Michigan Medical Service and Michigan Hospital Service have been working on this problem for a number of years, realizing that the policies which we are selling to our subscribers left an additional need which we were not supplying. In some cases, this involved the loss of our subscribers when so-called "major-medical" plans were bought.

After four years of extensive study, Michigan Medical Service and Michigan Hospital Service have developed an ideal plan of coverage which is now being offered. The State Insurance Commissioner approved it as of November 24, 1961. The present group coverage for hospital care and medical services as sold under the M-75 program are the basic coverage. Additions may be made by buying this new "Master-Medical" coverage. There are certain limitations of eligibility such as size of employee group and Certified Income Only contracts. There is an "extended" coverage of up to $30,000 per member with unlimited number of *needed* hospital days, and unlimited number of *needed* in-hospital medical days with no deductible or co-pay on extended coverage benefits. The policy provides "additional" benefits up to $20,000 per member with a 20 per cent co-pay and a "family" deductible. Covered are doctors' home and office calls, prescription drugs, additional charges by doctors for higher income subscribers (providing they are average, reasonable and customary charges for that community), ambulance service, hospital admissions for diagnosis and observation, office psychiatry and private duty nursing, the latter two items with a 50 per cent co-pay.

This policy is available in certain specified groups, and the cost is amazingly low. Michigan Hospital Service and Michigan Medical Service have established a joint banking service to care for this added service, which will be kept completely and financially separate from the regular Blue Cross or Blue Shield. The administration will be done jointly, using the same records now being used by Blue Cross and Blue Shield because all of the eligible subscribers are already Blue Cross and Blue Shield subscribers. Subscribers must come through their present approaches to Blue Cross and Blue Shield. Sponsored dependent members are not eligible for Master Medical coverage, but family continuation members are eligible. The subscriber's rates are set up for one person, two persons or family, and for certified income levels of less than $2,500; $2,500 but less than $5,000; $5,000 but less than $7,500; $7,500 but less than $10,000; $10,000 but less than $15,000; $15,000 but less than $20,000; $20,000 but less than $30,000, and $30,000 or more.

We believe this announcement is one of the most important made by our Blue Cross-Blue Shield program for many years. There have been demands from various organizations, government, labor, subscribers, employers, and others for a more inclusive or extended coverage than Blue Shield has been able to give. The supplemental Master Medical limited certificate makes possible much broader coverage of medical, hospital, dental and nursing service.

Michigan State Medical Society

Annual Meeting of The Council

February 1-2, 1962

HIGHLIGHTS

All members were present at the Annual Meeting of The Council which extended over a two full day period. Guests included: Sidney Adler, M.D., Sumner G. Whittier, and J. E. Verbiest, President, Executive Director, and Director of Professional Relations, Michigan Medical Service; A. E. Heustis, M.D., Commissioner of Michigan Department of Health; L. A. Drolett, M.D., of Lansing, Chairman MSMS Legal Affairs Committee; C. T. Hardwick, Ph.D., MSMS Economic Consultant; and Richard M. Campau, MSMS Research Director.

One hundred eighteen items were considered by The Council, chief in importance being:

- Secretary's annual report was approved with thanks (see page 343).
- The Editor's annual report was approved with commendation (see page 345).
- Report of Chairman of Michigan Delegates to the American Medical Association (Wm. A. Hyland, M.D.) was presented and referred to the Editor for publication in JMSMS.
- Treasurer's annual report was approved with thanks.
- Reports of the County Societies Committee, the Finance Committee, the Publication Committee, and the Advisory Committee to the Executive Director, all standing committees of The Council, were approved as amended by the Reference Committees.
- The auditor's report for the year 1961, and the budgets for the year 1962 were thoroughly considered and approved.
- Elections: Secretary D. Bruce Wiley, M.D., of Utica; Treasurer Wm. A. Hyland, M.D., of Grand Rapids; and Editor Wilfrid Haughey, M.D., of Battle Creek, were re-elected for the year 1962. Wm. J. Burns was re-appointed as Executive Director.
- Progress report on Michigan Hospital Service (Blue Cross) was presented by Joseph Woolsey in behalf of MHS President, John B. Lord (out of the country).
- Progress report on Michigan Medical Service (Blue Shield) was presented by President Adler and elaborated by Mr. Whittier.
- MSMS presentation to Governor's Commission on Prepaid Hospital and Medical Care Plans. H. F. Falls, M.D., Chairman of the MSMS Medical Socio-Economic Committee, submitted the Committee's formal statement to be presented to the Governor's Commission in Detroit February 3. The report was discussed and approved with commendation.
- Reporting of Venereal Disease by Laboratories. Recent action on this matter taken by the Michigan Pathological Society was reported by C. Allen Payne, M.D.: that all pathologists voluntarily submit a second sample of serum to the State Health Department Laboratory for a test and report directly to physician of the patient. The State Department may accept this plan and test it for one year.
- Medicare. A progress report on medical care to dependents of servicemen was presented by Secretary D. Bruce Wiley, M.D.; the proper MSMS Officers were authorized to sign necessary Medicare contracts.
- Committee reports. The following were considered: (a) Iodized Salt Committee, meeting of December 7, 1961; (b) Medical Socio-Economic Committee, December 20; (c) Committee on Arrangements for Medical Students Conference, January 3; (d) Cancer Control Committee, January 11; (e) Maternal Health Committee, January 11; (f) Legal Affairs Committee, January 11; (g) Permanent Conference Committee, May 24 (these minutes, previously re-referred to the Committee for additional information on several items, were approved on Febru-

ary 1); (h) Occupational Health Committee, January 12; (i) Committee on Scientific Work, January 17; (j) Special Committee on Alcoholism and Narcotics Addiction, January 17; (k) Postgraduate Medical Education Committee, January 18.

- Reports. (a) Representatives to AMA Political Action Meeting, held in Chicago January 26, 27: Councilor Mason and Legal Affairs Committee Chairman Drolett reported on this meeting attended by representatives of 50 state medical societies; (b) Representatives to AMA meeting on Care of the Aged, Chicago, December 15, 16. Doctor Drolett reported on this meeting, stating that AMA wished to have AMPAC endorsed by state medical societies, which action was taken by The Council on February 1.
- Medical Self-Help Training Program. This program, urged by the American Medical Association, was approved by The Council and referred to the MSMS Disaster Medical Care Committee for necessary implementation.
- Closed Circuit Color Television at MSMS 1962 Annual Session. Smith, Kline and French Laboratories of Philadelphia made a formal offer to provide closed circuit television at the September 1962 Annual Session in Detroit, which offer was accepted with thanks.
- Social Security Questionnaire Return. Speaker J. J. Lightbody, M.D., reported the initial return of the questionnaire sent to all MSMS members was 5,321 as of February 1 (a 78% return). Doctor Lightbody felt that a preliminary report on the questionnaire returns would be available in March.
- AMEF. President-Elect C. I. Owen, M.D., reported Michigan contributions to AMEF in the first 11 months of 1961 totalled $33,000, an increase of $11,000 over the previous year.
- Improved Liaison with SAMA Chapters in Michigan was approved by The Council whose Chairman was authorized to appoint a Councilor from the area of each SAMA Chapter to serve in a liaison capacity (Wm. Bromme, M.D., Detroit, was appointed as contact for Wayne State University Chapter and B. M. Harris, M.D., Ypsilanti, as contact for University of Michigan Chapter.) In addition the Finance Committee was requested to consider supplying a larger sum in the fiscal underwriting of Michigan's SAMA Chapters.
- Budget of Michigan Department of Health. President Otto K. Engelke, M.D., reported he had reviewed this proposed budget and recommended a study by all members of The Council.
- Legal Counsel Lester P. Dodd reported on opinion re patient's ability to drive and physician's responsibility where an endangering health condition exists; opinion that gall bladder irrigations and administration of eye drops for relief of headaches by a chiropractor constitutes practice of medicine; opinion on transmittal of clinical record authorized by patients upon written request and authorization of said patient; opinion on requirement to complete proper medical records by staff member of a hospital.
- Executive Director Wm. J. Burns reported on coverage of 13 committee meetings by staff and on 17 conferences with county medical societies, their officers, with congressmen and state senators and representatives. Mr. Burns also reported on two mailings to the membership and two additional mailings to county society officers since December 13, 1961.
- Report on program and details of County Secretaries-Public Relations Seminar, scheduled for February 3 in East Lansing, were presented by Mr. Burns.
- Pilot Study on Medical Aid to the Aged in Ingham County. This report was presented through the courtesy of David Kahn, M.D., of Lansing.
- Public Relations Counsel H. W. Brenneman reported on Awards Luncheon to be held February 3 in East Lansing; opposition to Social Security Medical Care; reprinting of MSMS booklet "Planning your Career as a Medical Associate"; vote of thanks from Constitutional Convention for provision of a first aid station during its session.
- Honorary membership to John Reid. At the February 2 luncheon of The

Council, John Reid of East Lansing, former Commissioner of Labor and member of Michigan Medical Service Board of Directors for 20 years, was presented with an engraved MSMS Honorary Membership card, per authorization of 1961 House of Delegates. (On February 6, Mr. Reid died unexpectedly at his East Lansing home at the age of 79.)

- Appointments: (a) to State Fair Committee—P. T. Lahti, M.D., of Royal Oak, as Chairman and Wm. Bromme, M.D., Detroit, as Adviser. (b) Nominations to Board of Michigan Hospital Service—H. B. Elliott, M.D., Flint; Herbert W. Harris, M.D., Lansing, and Wm. S. Reveno, M.D., Detroit. (c) To Board of Michigan Association of the Professions—Wm. M. LeFevre, M.D., Muskegon, and (d) to Michigan Health Council—R. Wallace Teed, M.D., Ann Arbor, as Delegate and K. W. Toothaker, M.D., Lansing as Alternate Delegate.
- Advisory Committee to the Executive Director (meeting of January 31): the committee gave detailed study to MSMS insurance coverage; it recommended that an additional man be employed as Director of Community Relations; and studied proper delegation of authority to the Executive Director.
- Finance Committee at its February 1 meeting accepted with thanks the report of the Treasurer; approved bills payable and authorized their payment; accepted the report of Auditor Kenneth B. Knostman, CPA, covering MSMS fiscal year ending November 30, 1961; established a new rate covering salary brackets for secretarial personnel; established an annual contingency fund; established a special fund for the Department of Economics created by 1961 House of Delegates; recommended that the President's Program and the Campaign for Freedom funds come from the public education and professional relations budget allocations; approved additional necessary landscaping for MSMS headquarters; recommended that the Council Chairman appoint an MSMS member to review all M.D. expense accounts submitted for reimbursement (subsequently Secretary D. Bruce Wiley, M.D., was appointed); instructed that, when the budget and audit report are published in the President's Letter going to all members, "pie-charts" of MSMS sources of income and dues distribution be included; and after full consideration adopted the 1962 MSMS budget.
- The County Societies Committee urged component societies to cooperate with the United States Chamber of Commerce; recommended a briefing session for MSMS Committee Chairmen to be held coincident with the MSMS Annual Session; heard a report that an investigation of the operation of MAA in Genesee County had been made by a Genesee County Medical Society member, and that a Genesee delegation soon will visit Washington to see their congressman on this and other subjects.
- The Publication Committee studied the auditor's report and also a comparison of advertising pages, costs, revenues, and total pages of JMSMS; it recommended approval of The Journal budget for 1962; it approved the Editor's Annual Report with a vote of appreciation to Editor Haughey for another year of hard work and excellent results achieved; it recommended printing the 1962 directory of members in three separate sections, each to be sent to the respective members of MSMS, the Woman's Auxiliary, and the Medical Assistants Society and that it be set in type to insure quality of reproduction; it appointed a subcommittee (of Publication Committee) to review JMSMS in its entirety and to submit improvement recommendations (Committee: E. E. Martmer, M.D., Chairman, H. F. Falls, M.D., and B. M. Harris, M.D.).
- Other matters presented by members of The Council included request of Michigan United Fund to appoint M.D. consultants to advise the Fund on matters pertaining to health, which request was approved and the Chairman of The Council appointed Kenneth J. Feeney, M.D., Lansing, and H. A. Towsley, M.D., Ann Arbor; proposal for new MSMS exhibit was considered; Interstate Compact on Mental Health was discussed, approved, and referred to the Legal Affairs Committee for implementation if the proposed legislation is presented as approved by the Mental Health Committee.
- The reports of individual Councilors concerning the condition of the profession in each District were presented, in accordance with the MSMS Bylaws.

- Joint meetings in small hospitals with osteopaths on joint staff. The Council, after due consideration, was of the opinion that "it is not unethical to have a combined staff in the public interest and therefore not unethical to hold joint meetings of the combined staff, providing this meets with the approval of the county medical society."
- At the request of the Wayne County Medical Society Liaison Committee with Osteopaths, The Council authorized the President to appoint two representatives from outside Wayne County to serve as members of this Committee.

ANNUAL REPORT OF THE SECRETARY

Presented to The Council February 1, 1962

Membership

The Michigan State Medical Society membership for 1961 showed a total of 6,775 members, including 38 Military members, 351 Associate members, 349 Life members, 96 Retired members, and 2 Honorary members.

The total paid membership was 5,939, with net dues of $440,331.25. The number of members with unpaid dues was 30. (The 1960 totals were 5,877 paid members and 28 unpaid.)

Deaths During 1961

I must regretfully report a total of 78 deaths among members during 1961:

Alpena County—Francis J. O'Donnell, M.D., Alpena.

Barry County—Daniel M. Clarke, M.D., Williamsport, Pennsylvania.

Bay County—Robert P. Gunn, M.D., Bay City; Clarence W. Reuter, M.D., Bay City; J. Campbell Smith, M.D., Tekonsha.

Branch County—Richard W. McLain, M.D., Battle Creek.

Eaton County—Stanley C. Whitlock, M.D., Dimondale.

Genesee County—Clifford P. Clark, M.D., Miami, Florida; Edwin E. Miller, M.D., St. Petersburg, Florida; Frank A. Ware, M.D., Flint; Harold W. Woughter, M.D., Flint.

Gogebic County—Wayne A. Gingrich, M.D., Ironwood.

Grand Traverse County—Clifford F. Brunk, M.D., Traverse City; Jerome T. Jerome, M.D., Traverse City; Harold F. Osterhagen, M.D., Traverse City.

Houghton County—Philip D. Bourland, M.D., Calumet; John J. Burke, M.D., Hubbell.

Ingham County—Carleton Dean, M.D., Lansing; Frederick S. Leeder, M.D., Lansing; Joseph C. Ponton, M.D., Mason.

Jackson County—James E. Munro, M.D., Jackson; George E. Winter, M.D., St. Petersburg, Florida.

Kalamazoo County—Frederick E. Grant, M.D., Kalamazoo; Marvin R. Kuizenga, Ph.D., Kalamazoo; S. Rudolph Light, M.D., Kalamazoo; Hazel R. Prentice, M.D., Kalamazoo; Thomas C. Smith, M.D., Kalamazoo.

Kent County—Fred P. Currier, M.D., Grand Rapids; Waldemar B. Mitchell, M.D., Grand Rapids; John W. Rigterink, M.D., Grand Rapids; George H. Ruggy, M.D., Grand Rapids; Earle E. Schumacher, Jr., M.D., Grand Rapids.

Lapeer County—Daniel J. O'Brien, M.D., Lapeer.

Lenawee County—Homer E. Isley, M.D., Blissfield.

Monroe County—George W. Williamson, M.D., Dundee.

Muskegon County—Henry P. Greene, M.D., Muskegon; Donald McDiarmid, M.D., Muskegon; Richard Sears, M.D., Muskegon.

Sanilac County—Ernest W. Blanchard, M.D., Deckerville.

Oakland County—Ralph G. Ferris, M.D., Birmingham; James C. Gibson, M.D., Milford; W. Lloyd Kemp, M.D., Birmingham; Bert M. Mitchell, M.D., Pontiac.

Saginaw County—Delbert E. Siler, M.D., Saginaw; Edward H. Stahly, M.D., Saginaw.

St. Clair County—Frank V. Carney, M.D., St. Clair.

St. Joseph County—Leal K. Slote, M.D., Constantine.

Washtenaw County—Samuel W. Donaldson, M.D., Ann Arbor; Lizzie W. Oliphant, M.D., Ann Arbor.

Wayne County—Russell W. Alles, M.D., Detroit; John A. Belisle, M.D., Eloise; Thomas T. Callaghan, M.D., Detroit; Duncan A. Campbell, M.D., Detroit; Dorothy F. Caton, M.D., Detroit; Frank O. Connolly, M.D., Detroit; Otto O. Fisher, M.D., Detroit; Jacques P. Gray, M.D., Detroit; Austin Z. Howard, M.D., Detroit; J. Gilbert Israel, M.D., Detroit; George A. Kamperman, M.D., Detroit; Philip L. Lathrop, M.D., Clarinda, Iowa; Kenneth M. McColl, M.D., Detroit; Allan W. McDonald, M.D., Detroit; Richard M. McKean, M.D., Detroit; Henry C. Moritz, M.D., Detroit; John D. Mossman, M.D., Detroit; John M. Murphy, M.D., Detroit; Leo Orecklin, M.D., Detroit; Lawrence Reynolds, M.D., Detroit; Donald G. Ross, M.D., Grosse Pointe; Isadore A. Shapiro, M.D., Detroit; Delma F. Thomas, M.D., Detroit; Roger V. Walker, M.D., Detroit; Douglas J. Watson, M.D., Detroit; J. Edwin Watson, M.D., Detroit; Jacob S. Wendel, M.D., Detroit.

Wexford County—Ralph G. Lommen, M.D., Manton; Michael R. Murphy, M.D., Cadillac.

Organizational Activities

1961 Annual Session—The 96th Annual Session was held in Grand Rapids. The total attendance was 2,579, which includes 1,434 doctors of medicine. Minor refinements were made in the program, which has proven popular and scientifically valuable and most popular to MDs over the years.

1961 Michigan Clinical Institute—Once again, as in previous years, Detroit was the site for the 15th Michigan Clinical Institute, with many groups joining to sponsor the educational conference. Early morning discussion groups were offered for the first time and were so successful, they will be continued in 1962. Total registration was 2,626 including 1,450 doctors.

Annual County Secretaries-Public Relations Seminar—The 1961 Seminar was moved from Detroit to East Lansing to permit participants to tour the MSMS Headquarters, then under construction. As an innovation, each county society secretary was given a loose-leaf handbook of pertinent information. Total attendance was 138.

Dedication of New MSMS Headquarters—One of the 1961 Society highlights was the dedication on June 4 of the new headquarters in East Lansing. The president of the AMA was the keynote speaker for the short, impressive formal program. The old MSMS headquarters in Lansing (a converted house) was sold the same month that the move to the new building was made.

Communications With Membership—Year-round com-

munications, with special emphasis upon various occasions, continues to be a major effort of MSMS.

During 1961, a total of four "Secretary's Letters" was mailed to the leaders of county societies and two other informative communications were sent to every MSMS member. These publications supplemented the news and editorial matters which appeared in the monthly "MSMS Journal."

Once again, the "MSMS Legislative Reports" were sent to 750 key men during the legislative season. These newsletters contained timely information about Michigan and federal issues affecting Medicine.

One issue of "Medical Economic Currents" was published to keep 1,000 MSMS members well informed about socio-economic matters. This unique publication interprets data through extensive use of easy-to-understand charts and graphs.

For the first time, MSMS issued a digested Annual Report in October. This concise printed report was mailed to all MSMS members in an effort to keep them better informed about Society affairs.

The Journal

The following financial information relative to The Journal is found in the annual audit report of Kenneth B. Knostman, CPA. Income was $113,256.91 which is $19,593.09 under the estimated budget for 1961. (This included $17,614.28 allocation from members' dues). Expenses were $120,176.64 which was $6,923.36 under the budget estimate for 1961. The total figures result in a net loss on the activities of The Journal for the year 1961 of $6,919.73. This compares to a loss of $11,574.83 in 1960.

Public Relations

The Public Relations program has been extensively reviewed in its specific detail in both the report of The Council, to the House of Delegates and in the Anuual Report of the Public Relations Committee. These have been well rounded in nature, combining effectively the use of radio, TV, newspapers, motion pictures, publications, exhibits, conferences, speakers, etc. Our relationships with communication media have never been better, although our programming has been limited by budgetary considerations.

I invite your attention now to highlights worthy of particular note:

1. Excellent progress has been made in the area of professional relations. Our work with the Michigan Association of the Professions and the Michigan Health Council has added the strength of 107 health and professional organizations to our efforts. The total budgets of these two organizations now aggregate over $110,000 annually, and this money has been used, in the main, to espouse the causes and principles relating to health care and professional practices that we want the public to accept and support.

2. As a result of the special meeting of the House of Delegates in April, an extensive and intensive program of information to the public and to our lawmakers has been carried on. Although the budget for this activity has been kept to a minimum, the personnel activity and personal contact by members and staff has accelerated, and the awakened efforts of our county medical societies is encouraging. We are also finding that allied groups representative of farming, industry, business, and insurance are rallying to the cause.

3. Our planning for the future indicates vast possibilities for improved communications both with our members and with the public at large. Representative of this planning is the exploratory efforts to establish a system of two-way radio communications and television instruction which can advantage us in postgraduate education as well as the dissemination of information on other medical society projects of a political-socio-economic variety.

It should be noted that 1962 will require greater emphasis on Public Relations due to the imminent and continuing threat of socialized medicine. Undoubtedly our 1962 budget of money and personnel will reflect this. However, it would be tragic for us, in the heat of campaigning against an immediate threat, to lose sight of the long-range necessity for continuing our efforts to clearly establish and demonstrate to the people of Michigan the concern of the organized medical profession for the public welfare. To accomplish this, the educational and scientific efforts called for in the Presidents Program must be stepped up, and the recommendations of the Public Relations Committee re:

1. A campaign to establish full time local public health units in all areas of Michigan.

2. An all-out campaign for immunization against polio, tetanus and diphtheria.

3. The holding of a well-publicized conference inaugurating new and improved programs to handle medical emergencies of both an individual and statewide variety.

4. The institution, in cooperation with the health insurance industry, of a campaign to sell paid-up-at-65 medical and hospital insurance, including an effort to make the Michigan Medical Aid to the Aged work better.

5. The making of an environmental study including the effect of fluoridation on teeth, sanitation on dysentery and other infectious diseases and the need for home care programs.

6. The promotion of a physical conditioning and fitness program—not overlooking emphasis against obesity—in cooperation with, among others, the schools of Michigan; be implemented to the fullest.

Specific plans should also be begun at once for the celebration of the MSMS Centennial in 1965, because this affords an excellent public relations opportunity to review the outstanding contributions of Michigan medicine to the public.

Committees

Among the "unsung heroes" of the Michigan State Medical Society are the 517 members who serve on 61 committees. These members give unselfishly of their time and abilities to tackle problems and to develop workable solutions. A total of 125 committee meetings were conducted—virtually all covered by MSMS staff personnel. Much commendation must be accorded the committee members who contributed so generously in the public interest.

The 1961 House of Delegates singled out the Relative Value Study Committee for deserved plaudits after its three-year study.

Services For Members

1. *Group Life Insurance.*—Our group life insurance carrier, Mutual Benefit Life Insurance Company of New Jersey, reports that 1455 members are now insured. A total of $220,500 death claims has been paid since this insurance program was begun in 1959. The total amount of insurance in force is $12,684,000.

2. *Group Health and Accident Insurance.*—The Provident Life & Accident Insurance Company, our carrier, reports a current enrollment of 2,045. During 1961, claim payments amounted to $126,252.06. A total of new claims reported during 1961 was 211. At the close of 1961, there were 43 open claims; and the reserve on December 31, 1961 (representing future liability on present reported claims) was $104,267. The weekly disability benefit continues to be increased by 10 per cent in case of claim.

Legal Affairs

The subject of medical care for the aged was the major topic both in Lansing and in Washington, D. C. during the past year.

MSMS members and the several medical and affiliated state and county organizations worked throughout 1961

to oppose the federal King-Anderson bill (HR 4222). MSMS presented official testimony before the U. S. House Ways and Means Committee at Washington hearings in July.

One of the special MSMS efforts was the development and production of a poster, plus materials for distribution, for doctors' offices. This poster and accompanying literature (offered at no charge to MSMS members) point out the weaknesses of the King-Anderson approach of tying health care financing to the social security tax. It also compares the M.A.A. benefits now available with those proposed by the King-Anderson bill.

In the State Legislature, the MSMS Legal Affairs Committee concerned itself with over one hundred proposals. Some of these bills—in the best interest of the public and medicine—were supported while others were opposed. The experience of 1961, along with that of previous years, has been utilized to develop a "1962 State Legislative Resource Kit" to help doctors understand the background on expected 1962 legislative problems.

MSMS testified in favor of the proposals which were passed by the 1961 session of the Michigan Legislature to expand the benefits of the Michigan Medical Aid to the Aged act. M.A.A. was supported by MSMS when originally introduced and passed in 1960.

MSMS Councilors and field secretaries visited many county societies to tell their leaders and/or general membership meetings about state and federal legislation facing medicine. The MSMS is deeply grateful to its members for their unstinting aid in counselling their state and national legislators.

1961 House of Delegates

No detailed report of the 1961 House of Delegates is made by your Secretary because the full proceedings appear as part of the 1962 January Journal. An unofficial digest of the House actions was mailed in October this year to every member as a new communications effort of the Society.

Acknowledgments

The members of the Executive Office staff continue to give untiringly of their time and abilities in behalf of the Michigan State Medical Society and cannot be too highly commended for their efforts.

To everyone who has aided so generously and willingly in the discharge of his duties, your Secretary is most grateful.

D. Bruce Wiley, M.D.
Secretary

EDITOR'S REPORT FOR 1961

The Journal of the Michigan State Medical Society has passed another milestone. It has completed its 60th volume.

During the year 1961, The Journal continued its program of making minor changes and some major ones in its format and appearance. It has followed the program started many years ago. In 1943 we changed the cover page eliminating the advertisement and the table of contents and making a more impressive cover. At that time we began using various pictures on the page such as the State Capitol, the Horace Rackham Memorial in Detroit, Michigan Civil War Governor at the Capitol, the Flag for the July number, Campus Martius in Detroit, and so on, until the 1948 numbers when the January issue called attention to the first Michigan Clinical Institute and carried the pictures of the speakers on the cover page. From that time each number of The Journal has been designated to some particular activity, function, interest, specialty or component society group with appropriate covers. The papers were supplied in part at least and sometimes completely by selected coordinators representing that particular interest, group or organization.

In 1961, we carried through with this same program. During the years we have changed the format of the title "JOURNAL of the Michigan State Medical Society," varying the type etc., numerous times until we have reached the caption in use now which we feel is much more indicative of our efforts by stressing *Michigan* instead of *Journal*.

In this process, over the years, Michigan has stimulated the majority of the other state medical journals into improving their covers, typography and content. Three or four of the state medical journals change their cover every month, some occasionally. Most of them are putting more stress into distinctive covers. This year we have followed with the same program. The January cover stressed the Michigan Clinical Institute special number containing announcements and programs. It was an MCI design in the block form to indicate that Michigan was introducing a "block system" of carrying on this program, which proved very successful. The February number had been planned about 18 months. The late J. P. Gray, M.D., of the Parke Davis Company, Detroit, as leader of the Michigan Chapter of the American Medical Writers Association, had made plans and secured articles by various interested writers over the year, and sent them to the Editor almost completely edited, about the most satisfactory and elaborate preparation which could be made for a number of The Journal. A design had been selected for the cover but The Council designated that this number would carry the Editor's picture. The Coppin painting hanging in the Michigan Medical Service Headquarters was borrowed and reproduced on the cover page. We have received a tremendous number of favorable comments.

The March number was devoted to Arthritis, and J. J. Lightbody, M.D., Detroit, assembled the materials for the papers and other items. The cover depicted a stooped man with the label "Care Today," and a man standing much more erect and a little taller with the label "Care Tomorrow." Mailed with this number as a second section was an eight-page and cover roster of the committee personnel for 1960-61: Committees of the House, committees of the Society and committees of The Council. The April number was devoted to Cancer, as it has been for many years. Henry J. VandenBerg, M.D., Grand Rapids, presented the guest editorial and helped gather the material.

May was the opening of our headquarters in East Lansing and the cover consisted of a sweeping picture of the facade of our beautiful headquarters building, a very impressive and imposing structure. June again was devoted to Michigan Medical Service, the cover consisting of three overlaid circles of different colors on a black background, "Public," "Medicine," and "Blue Shield" marking the circles. G. Thomas McKean, M.D., President, and L. G. Goodrich, Assistant Director, assembled the material. The center of The Journal had bound into it, but removable, a twenty-four page report printed on heavy tinted paper, which could be and was, used for the Michigan Medical Service's report to the public. Actually, it was a special issue of *The Blue Shield Record*.

The July number was the Annual Session with a picture of the House of Delegates in session. The August number was devoted to Ophthalmology, the cover being the picture of an eye with a drop being put into it. The guest editorial was by Robert J. Crossen, M.D., Detroit, who helped assemble the other material. September was devoted to Otolaryngology, illustrating numerous instruments in use. V. E. Cortopassi, M.D., Saginaw, helped select the material and contributed an editorial. October was devoted to Pediatrics; the cover contained a number of sketches showing various methods and ages in the care of the pediatric patient whether for illness or education. A. Hazen Price, M.D., Detroit, helped furnish the material, papers and the editorial.

November was devoted to Michigan Heart Association and the illustration was "Human Cardiac Contractile

Protein Actomyocin Band." John G. Bielawski, M.D., Detroit, coordinated material for this issue. The December number was devoted to Calhoun County Medical Society. The cover was a grouping of three modern hospitals and four historic hospitals. Alfred Hamady, M.D., Battle Creek, helped to secure the materials, the papers, and furnished one himself.

We believe that THE JOURNAL for this year, 1961, has covered an extremely valuable and extensive program. The presentation of material has been increasingly interesting. This volume of THE JOURNAL has contained considerably less pages than the preceding ones. There were 1,598 plus the Annual Session special number in January of 96 pages, and the eight-page roster of committee members, a total of 1,718 pages against a total of 2,144 for the year 1960. A total saving of 426 pages.

This year, we did not publish a Directory number by instruction from the House of Delegates; however, it will be published annually from now on as also instructed by the House.

During the year, we have had 168 authors listed, 12 of whom appeared twice. This is a remarkably large proportion of our members who have become authors in our own JOURNAL. We have published 73 editorials and 16 editorial comments. There were 78 M.D. obituaries (no past president), 21 communications, 60 book reviews, 48 ancillary items important enough to be indexed, 17 Heartbeats, 32 Department of Health items, 28 national and world items, 44 socio-economic items and 106 representing the State Medical Society.

During the year the Editor attended the Association of State Medical Society Editors, at which time he was presented with a Distinguished Service Citation. Mr. Forkert, who has been rating the State Medical Journals for several years, gave us a grade of 83. He had only two minor suggestions to make. He suggested type facing for the contents page to make it more readable, or to eliminate some of the items. He also believes that on the first page of each paper we should put in a "blurb" about the contents or the author.

We have been contented and happy during the year to carry on this work and sincerely appreciate the unhesitating and voluntary cooperation of those who help in getting out special numbers, as well as of the members of The Council and the Publications Committee, without whom this task would have been almost impossible. We offer our sincere thanks and appreciation to all of those who have cooperated so wonderfully in helping to produce another volume of THE JOURNAL of the Michigan State Medical Society. We haven't said anything about the advertising. We are still running the JOURNALS rather small in comparison to what we used to do. We have urged our contributors to make their papers short but interesting and impressive. We have some papers which are too long on file, others we have asked the authors to shorten because of the curtailment in our advertising due to reasons beyond the control of the medical profession, but of a political nature.

WILFRID HAUGHEY, M.D., *Editor*

Maybe the Senator Needs A Good Hearing Aid

It's been a long, long way along the road of scientific progress from the clumsy and inefficient old "ear trumpet" of yesteryear to the modern hearing aid that can correct so many aural deficiencies and be concealed in a spectacles frame or be hidden in the ear, itself. Today's tiny, intricate —and expensive—hearing devices did not "just grow," nor did they come into being by accident. They are the result of many years' work and many millions of dollars being poured into the laboratory. And, they have brought a new meaning to life for millions of people.

Now comes Sen. Estes Kafauver, fresh from his personal vendetta against drug prices, to demand an investigation into the high cost of hearing aids. The major manufacturers have already supplied cost and profit figures to the senator, but to concede that this information justifies the price of hearing aids would deprive Sen. Kefauver of what he cherishes most—the spotlight of national publicity. So he says he wants to know why some hearing aids cost as much as does a color television receiver, and why they cannot be sold as cheaply as can a transistor type radio set.

In an effort to forestall the type of public hysteria Sen. Kefauver likes to create when he begins work on a political whipping boy, it seems only fair to remind the Tennessean of facts he already has at hand.

First, all hearing aids sold in the United States are not expensive. There is one Japanese-made model, for example, that does sell for the price of some transistor radio receivers —$29.95. But, it has proved to be of inferior quality when compared with the excellence of American-built devices and those who buy it are seldom satisfied. It is, incidentally, mass produced, which probably accounts for its lack of quality.

We are sure that San. Kefauver knows that the American hearing-aid industry is a highly specialized field. It has been estimated that only three million persons are wearing the devices and that only about 350,000 of them are produced annually. Even more important is the fact that these little units are completely hand made with the greatest possible precision and that some are so tiny and complex that they must be assembled under a microscope.

True, the components used in hearing devices are similar to those used in transistor radio receivers, but with a tremendous difference in size, a factor that requires much more precision in assembly. Therefore, it is impossible to compare the cost of a hearing aid with that of radio sets, which are assembly-line produced by scores of millions each year.

Just as he did in his drug price inquiry, Sen. Kefauver carefully avoided recognition of the factors that determine the price of any commodity—availability of raw materials, production costs and demand. There is no scarcity of materials for hearing aids, but production costs are great and demand is relatively low. If, for instance, people bought hearing aids in quantity comparable to the way they buy radio receivers, the price of hearing aids probably would decline considerably.

But there is another vital element involved in the price of hearing devices. Any expert on the subject will testify that the hearing deficiencies of individuals will vary as much as do their requirements for correct eyeglasses. One person may not be able to hear high-pitched sounds, but can recognize low tones with ease. Another may have just the opposite problem. The time required in fitting a person with the proper hearing device may run into days and weeks before full satisfaction is obtained. A sizable portion of the price is consumed by the cost of fitting, which must be handled on a customized, personal basis.

It is difficult at times to understand Sen. Kefauver's predilection for inquiries of this type, for he has gone about as far politically as he can expect to wander. Perhaps the senator needs a hearing aid, himself, to hear that a sizable portion of the public is getting fed up with his investigations that get nowhere.—Editorial—Battle Creek *Enquirer and News*, March 5, 1962.

Report on 1962 American Medical Association Interim Meeting

Wm. A. Hyland, M.D.,
Chairman of Michigan Delegates

At the Denver Session, November 25-December 1, 1961, there were over 6,000 physicians and immediate medical connected personnel in attendance.

The highlight outside of the session of the American Medical Association was the Health Fair held under the auspices of the Denver County Medical Society, Colorado Medical Society, the American Medical Association and Colorado Veterinary Association.

On the first day over 15,000 people attended, the second day over 18,000, and on Sunday, the third day, over 22,000, necessitating the police closing the place due to fire regulations every two hours, for one half hour to empty the auditorium of visitors to accommodate the large crowd waiting to enter.

The physicians, men, research groups and veterinarians demonstrated various health phases, the most thrilling event being the twice-daily operations on dogs. The caesarean section on a chihuahua caused near panic of excitement and glee by many youngsters. This was also on television in the building and the children howled, stamped and nearly bowled the place over when one of the attendants held aloft the little newly born puppy. The telephone was constantly ringing each day by the youngsters wishing to know the progress of the dog. The puppy was returned from the Veterinary Hospital and put on exhibition.

SCIENTIFIC SESSION

Among the more important reports was one dealing with cholesterol again. This time it was noted that of nearly 1,000 patients selected and reported by Dr. B. O. Barnes of Denver as likely candidates for heart attacks because they had elevated levels of blood cholesterol, when treated with thyroid extract, no heart attacks resulted to any of the group during the period of treatment with the hormone. The finding was similar to that voiced in a discussion at the annual meeting of the American Goitre Society.

Another interesting report concerned an electrical instrument which can predict whether the upper end of a fractured femur has adequate blood supply to live. This test proved accurate in 94 per cent of cases, thus saving weeks of inactivity before a prosthesis was performed.

It was suggested that Salk vaccine be continued until all three oral types could be produced in sufficient quantity to cover everyone.

Dr. Jonas Salk forecast the development of a single multi-valent vaccine which will protect against as many as 100 different viruses.

Radical x-ray therapy of tumor doses in Hodgkins disease has revealed striking results in prolonging life.

Movies and television were urged as beneficial to the eyes as exercise. Reading in the dark, holding reading material too close to the eyes or reading while lying down could cause discomfort but will not hurt the eyes.

Various surgical procedures in changing the vascular supply in diseases of the liver were demonstrated.

The treatment of various fractures in discussion and in demonstration caused great interest. Televised surgical procedures from Denver hospitals were ably discussed during the surgery at the meeting rooms by moderators and panel discussants. Papers on heart and lung problems were very well received. Diabetes discussions were very interesting. Diseases of the blood, nose, throat, eye and ear and papers on the kidney and bladder brought out valuable discussions.

The various movies on technique and treatment on medical and surgical phases were heavily attended. The scientific displays created great interest as usual.

HOUSE OF DELEGATES

Relations with the American College of Surgeons, organization of the American Political Action Committee, Social Security health care, polio vaccine and medical discipline were the principal subjects acted upon by the House of Delegates at the American Medical Association's Fifteenth Clinical Meeting held November 26-30, in Denver.

Dr. Leonard Larsen, AMA President, informed the opening session of the House that proposals to incorporate health care benefits into the Social Security system "would certainly represent the first major, irreversible step toward the complete socialization of medical care." Therefore he urged full cooperative effort in opposing the King-Anderson Bill.

The only issue, Dr. Larsen declared, is socialization or centralization versus freedom of choice. He was confident that determination and hard work starting at the grass roots level on the part of physicians will bring the defeat of the King-Anderson Bill in Congress in 1962.

President Larsen alerted all in his presidential address that the next three months would be a milestone in the Practice of Medicine in the United States, as

shortly after the first of the year (1962) the State of the Union report from Washington would contain far-reaching medical suggestions of the administration.

He further stated that opportunities to block any adverse regulations were to be started at the grass root level in every county medical society. Contact with both national and state legislators by the profession as well as knowledge to every patient or neighbor reminding all what centralization or socialization in part would ultimately mean to all groups or professions if a foothold were to be gained by having government-controlled medical service. This he felt by far the greater number of citizens would not want.

Dr. Larsen felt optimistic of medicine's chances to resist or defeat this invasion of individuals' rights by the concerted effort he outlined.

More recently, it was reported that the terrific pressure on the pharmaceutical manufacturers had been lessened and a conciliatory attitude had been adopted by the Kefauver group. (Some in medicine were inclined to do likewise but Larsen warned on this score that any break in medicine's front would cause the whole house to fall.)

Pointing out that "we are engaged in an historic struggle to preserve our system of medical care and our stature as a profession," Dr. Larsen said:

"We are *for* voluntarism. We do not believe that Americans, acting either as citizens or patients, require central direction from government in their choice of doctor or hospital, in the spending of their health care dollars, or in their selection of the health services and facilities best suited to their own individual needs.

"We take our stand for voluntary cooperation, for preservation of the historic federal-state organizational structure, for individual responsibility, for help for those persons who *need* help."

Dr. Larsen emphasized that the American Medical Association will continue to give primary attention to implementing the Kerr-Mills Act in the states, promoting voluntary health insurance and prepayment plans designed for the aged, and upgrading nursing homes.

The House of Delegates gave enthusiastic approval to Dr. Larsen's address and took several actions reaffirming strong support for the Kerr-Mills program to aid the needy and near-needy aged, and urging a concerted determined fight against Social Security health care proposals in Congress.

The House advised all state and county medical societies to recognize the impending threat and to prepare now for any eventuality by continuing to oppose any scheme which tries to impose a substandard system of medical care on the American people.

"United, as well as individual, effort is essential," the House declared. "To stop short of our total effort is to invite disaster and to let loose upon our beloved America irreversible forces which ultimately destroy her. We cannot and we must not fail."

The osteopathic question was relegated to a minor role by the controversy, occasioned by the statement of Dr. Robert Myers of the American College of Surgeons that the AMA House of Delegates last June had retreated from its former stand on fee-splitting. The resulting furor caused many resolutions to be presented, ranging from those urging retraction by the College of Surgeons, of which Dr. Myers is assistant director, to some very heated demands for Dr. Myers' discharge from his office.

In the resolution committee hearings on this subject there was not only an overflow crowd, but an extreme over-abundance and repetition of words and views.

Although the College was guilty of injudicious dissemination of its opinion in giving it out for public consumption before discussing the AMA statement of last June with the proper officials, the Reference Committee stated it could see no valid use in prolonging this subject publicly. It did urge AMA officials to have an early discussion with policy-making representatives of the College and to report back to the House at its June 1962 session.

The close relationships of the College and the American Medical Association on the Joint Commission led some to believe the college possibly is in a position to dominate the Accreditation Commission. I do not feel this is the case. It is true that some of the same examiners are used by the Joint Commission, College of Surgeons and the Medical Education and Hospital Committee of the American Medical Association, but this is simply a matter of expediency and finances.

While I served on a committee from the American Medical Association and another from the College of Surgeons, it was noted that in several instances examiners from one or all three of these groups would drop into a hospital on inspections for their groups. After considerable study, it was felt that one examiner could cover for all three instead of duplicating by three examinations, which greatly increased the expense. Thus it was agreed by all to use all examiners to the best advantage and curtail the expense. It was interesting to note that many of those speaking before the Reference Committee and urging steps to halt the College, periodically engaging in Hawley-like explosions, were members of the College.

The Joint Committee on Accreditation has done monumental work since its creation, some of which has been difficult seemingly to some but it certainly has raised the standard of health care or service to all by the profession. A review of its work now and then is healthy and no doubt will create better understanding of its efforts and problems.

Finally, the House agreed with the intent of five resolutions which expressed strong dissatisfaction over recent statements by a spokesman for the American College of Surgeons. It also approved a Board of Trustees report informing the House that arrangements have been made for a January meeting with the American College of Surgeons Board of Regents to discuss that organization's recent statements and policy positions. The report expressed hope that the meeting will lead to unification of effort in behalf of American Medicine.

The House instructed the Board of Trustees to take the five resolutions to the January meeting and to report to the delegates as soon as possible on the results of the meeting. In taking the action the House approved a reference committee report which said:

"Your reference committee believes the public airing of disagreements between large segments of medicine can only confuse and shake the confidence of the public in the medical profession and distort the true image of medicine which the American people should have."

However, in its hearings upon the several resolutions relating to the recent statements of the American College of Surgeons, all those who testified were in opposition to the actions and statements of the American College of Surgeons. The majority of those who spoke were Fellows of the American College of Surgeons.

"Your reference committee has no wish to fan the flames of controversy ignited by the statements of the American College of Surgeons. On the other hand, the committee feels the House has an obligation to its membership—which includes physicians in all types of practice—to agree with the indignation manifested by the introduction of these resolutions and in the discussions before the committee.

"This is all the more important because the position of the American College of Surgeons is based on an incorrect interpretation of the action of this House which in no sense is a retreat from its position of firm opposition to fee splitting."

POLIO VACCINE

The House adopted a resolution which urged that medical societies at the local, county, district or state levels throughout the United States should encourage, stimulate and participate in surveys to determine the percentage of individuals in each community who have undergone immunizing procedures for poliomyelitis.

The resolution stated that on the basis of the results of the surveys the local medical society should determine the type of vaccine and the most effective type of program which will be of greatest benefit to the public.

Until such time as all three types of oral vaccine are available, the resolution concluded, the Salk vaccine should be the vaccine of choice for routine poliomyelitis immunization, with the choice of program for administering the vaccine to be determined on a local basis by each county medical society.

AMERICAN MEDICAL POLITICAL ACTION COMMITTEE

The House heartily approved the purposes and goals of the recently organized American Medical Political Action Committee and urged all physicians, their wives and interested friends to join the American Medical Political Action Committee and other political action committees in their states and communities.

"Effective political action must be carried on at the local level and effective implementation must be done by local groups of physicians," the House said. "The formation of American Medical Political Action Committee recognizes the need for a national medical political action committee to coordinate the political activities of physician groups at all levels throughout the country."

The purposes of the American Medical Political Action Committee, which is an organization separate and distinct from the American Medical Association, as required by federal law, are:

1. To promote and strive for the improvement of government by encouraging and stimulating physicians and others to take a more active and effective part in governmental affairs.
2. To encourage physicians and others to understand the nature and actions of their government as to important political issues and as to the records and positions of political parties, officeholders and candidates for elective office.
3. To assist physicians and others in organizing themselves for more effective political action and for carrying out their civic responsibilities.
4. To do any and all things necessary or desirable for the attainment of the purposes stated above.

MEDICAL DISCIPLINE

The House received from the Council on Constitution and Bylaws a proposed amendment which would have made it possible to implement a recommendation by the Medical Disciplinary Committee that was approved by the House at the June 1961 meeting. This recommendation was to change the bylaws so as to confer original jurisdiction on the Association to suspend and/or revoke the American Medical Association membership of a physician found guilty of violating the Principles of Medical Ethics or the ethical policies of the Association, regardless of whether or not action has been taken against him at the local level. However, after considerable discussion on the floor of the House, the proposed amendment was referred back to the Council on Constitution and Bylaws.

In another action on medical discipline, the House approved the expanded activities of the Judicial Council, which has taken over permanent responsibility in that area, and said that the Council program should benefit all physicians, the public and the profession.

MISCELLANEOUS ACTIONS

In considering a wide variety of resolutions and annual and supplementary reports, the House also:

Disapproved of two proposals which would have required that *resolutions* be introduced 30 and 45 days, respectively, before Association meetings.

Approved a statement that physicians have an *ethical obligation* to participate in medical society activities and express their opinions fully and freely.

Reaffirmed American Medical Association policy that it is not considered unethical for a physician to own or operate a *pharmacy* provided there is no exploitation of the patient.

Agreed with Judicial Council that the physician himself is responsible for the control and custody of *drug samples* once they come into his possession, and in the high tradition of the medical profession he should not dispose of them in any way that could cause harm to others.

Commended those constituent medical societies which have moved forward in the area of *human relations* by eliminating membership restrictions based on race or color. In connection with the same subject, Dr. Peter Murray of New York City, retiring after 12 years of service in the House, told the delegates in a farewell address that Negro physicians now have some kind of medical society membership in every state but one.

Approved a recommendation that a special House committee be appointed to investigate all facets of the operation of the *Joint Commission on Accreditation of Hospitals.*

Agreed with the Board's choice of Miami Beach, Florida, as the site for the *1964 Clinical Meeting.*

Approved the combining of the American Medical Education Foundation and the American Medical Research Foundation into the *American Medical Association Education and Research Foundation* effective next January 1.

Deferred action on a proposed study of *fund raising* by voluntary health agencies, pending the development of additional information by the American Medical Association Committee on Voluntary Health Agencies.

Reaffirmed the previous policy that physicians should have the privilege of prescribing drugs by either *generic or brand name.*

Approved the principle of *income tax deductions* for medical care of the aged.

Recommended, in reviewing the *Medicare Program,* that all county medical societies in the area surrounding armed forces hospitals make a serious attempt to establish formal liaison with the physicians on those hospital staffs.

Endorsed the administration of indigent medical care programs developed in cooperation with local medical organizations as a legitimate activity *of state and local health departments.*

Urged the elimination of all categories in programs of *assistance to the needy* at the federal and state level, with all assistance provided through a single program.

Referred to the Council on Medical Service a resolution proposing the use of state and federal tax funds to provide voluntary prepayment health insurance protection for the aged. In a related action the House approved of experimentation with *prepayment plans* under assistance programs.

Urged more vigorous promotion of voluntary nonprofit prepayment health plans.

Urged every physician in the United States to use automobile *seat belts.*

Recommended as a civil defense measure a *mass immunization* program for the general public.

Suggested that the Board of Trustees continue its negotiations to develop a group *disability insurance* program for American Medical Association members.

Instructed the Council on Medical Education and Hospitals to study the present and potential contribution of the *American Board of Abdominal Surgery* to the advancement of the art and science of surgery and the betterment of public health, to determine whether it should be approved as a recognized examining board.

Recommended that the Secretary of Defense consider the advisability of developing a training program for *reserve medical* officers.

Approved and commended the objectives and program submitted by the Committee for Liaison with *National Nursing Organizations.*

Concurred in the Board's appointment of a special committee to study the organizational status of *American Medical Association Sections,* the functions of the Scientific Assembly and existing procedures for establishing medical certifying boards.

DONATIONS

Contributions totalling just under $500,000 from six state societies were presented to the American Medical Foundation during the session.

REGISTRATION

Final registration at the meeting reached a total of 6,138, including over 3,000 physicians.

Suggests Ways Medical Assistants Can Help

By Reta V. Stahl, Public Relations Chairman
Michigan State Medical Assistants Society

How valuable, Doctor, is your assistant?

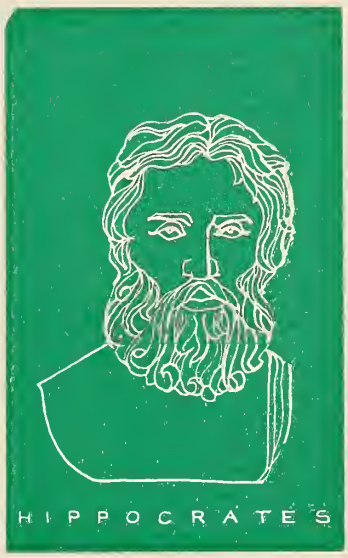
Numerous patients visiting offices of physicians each day are in search of information beyond the treatment of their illnesses. Many hesitate to impose on the doctor's time. Some fear their questions will not be considered intelligent. They are confused by contradictory reports which they read in the newspapers and magazines. These questions, therefore, fall quite naturally to the receptionist, nurse, lab technician, or general "Girl Friday."

Recently several representatives of the Michigan State Medical Assistants Society were privileged to attend the MSMS County Secretaries-Public Relations Seminar. Some interesting and informative material regarding MAA, King-Anderson bill, and related subjects of importance to the medical profession as a whole were discussed. It was immediately apparent that MSMAS and all aides throughout Michigan could be of invaluable assistance in this particular area.

At the present time many of the questions being put to your assistants concern medical care for the aged and suggested legislation regarding such care. It is, therefore, extremely important that the employees in your office be thoroughly informed, not only with the general view of the medical society, but with your own personal arguments on the subject. Your assistants should be equipped with the correct facts and prepared to explain in simplified form exactly what the King-Anderson bill would mean to each individual, what benefits would be covered under such a bill as well as those which would *not* be covered.

Since your assistants are envisioned by the general public as representative of you and your views on all issues, we sincerely urge you to use a little of your valuable time discussing with them the important phases of medical care for the aged. We suggest that you urge your assistants to read your medical journals, and various other news material received daily in your offices as well as non-medical news media, with particular emphasis on articles concerning legislation. We also urge that you encourage your assistants to join a local MSMAS society so they may benefit from the informative programs available to this group.

A courteous, well-informed medical assistant is your best "PR."



Honor Medical Students

Fourteen Michigan students presented formal papers on their own medical research at the University of Michigan Medical Center February 15 for the Annual Student Research Forum. Dean W. N.

Hubbard, Jr., M.D., opened the forum with a short address. Doctors Henry Swain and J. S. Behrman presided over the sessions. Michigan students chosen to participate, their class, field of research and hometown are (a) Ann Arbor: Peter H. Abbrecht ('62, physiology); John D. Bartlett ('63, pharmacology); William D. Burton ('62, surgery); Harold R. Clure ('62, internal medicine); John W. Cowden ('64, pathology); Richard W. Erbe ('64, internal medicine); Robert M. Komorn ('64, pharmacology); Jan Edward Leestma ('64, pathology); James A. Light ('64, anatomy); (b) Detroit: H. Roger Netzer ('62, neuroanatomy); Jerome S. Nosanchuk ('64, bacteriology); (c) Grand Rapids: Tom R. DeMeester ('63, pediatrics).

Blue Cross Aids Future Nurses

Ten Michigan high school graduates will receive $300 scholarships to nursing schools this year, in the 12th annual competition sponsored by Michigan Blue Cross.

The contest, open to all high school seniors and graduates in Michigan, is conducted by the Michigan League for Nursing, the official nursing recruitment and education agency.

In the past 11 years, in which this award has been made, Blue Cross has helped train 110 nurses at a cost to its members of less than one-tenth of a cent each year.

MSPA Names New Executive

Robert C. Johnson is the new executive secretary of the Michigan State Pharmaceutical Association, replacing John H. Butts who retired after serving six years as executive secretary.

Mr. Johnson served as field secretary of M.S.P.A. since October 1, 1960. He was graduated from the Wayne State University College of Pharmacy in 1958 and received a Master of Science Degree in Pharmacy Administration in 1962 from Wayne State University. Mr. Johnson taught pharmacy jurisprudence at Wayne in 1959-60, and was the manager of a pharmacy in Trenton, 1958-60.

Donald H. Kaump, M.D., New President of Detroit Institute of Cancer Research

Donald H. Kaump, M.D., assistant director of pharmacology research at Parke Davis Company, is the new president of the Detroit Institute of Cancer Research. Robert C. Horn, M.D., Detroit, is the new vice president and Laurence S. Fallis, M.D., Detroit, retiring president, will continue as a member of the executive committee.

Three major grants to the Institute have been given by the United States Public Health Service. One of these amounting to $56,691 will support the work of Jerome Horwitz, M.D., and his associates for the next three years as they investigate the relationship between sex hormones and breast cancer.

A second grant of $58,551 will support work in the field of electron microscopy related to the function of the liver by Alden V. Loud, M.D., and a third grant amounting to $316,490 will support the Institute's efforts related to chemical treatments for cancer under the direction of Dr. Simpson.



MSMAS Leaders for 1962

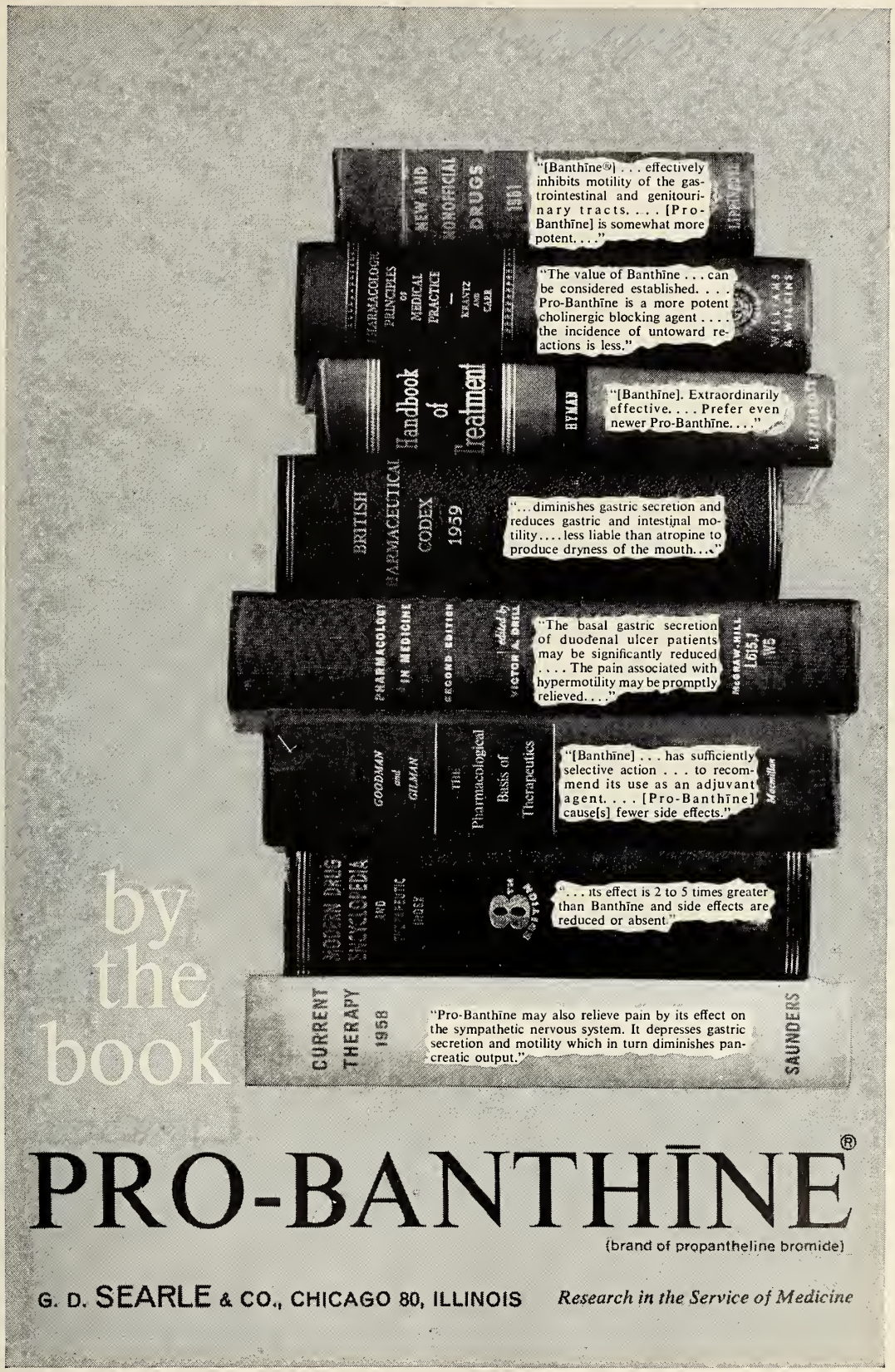
Miss Cecile Rutan, of Hanover (*center*) is president for 1962 of the Michigan State Medical Assistants Society. Other current officers are (*left to right*): Miss Helen Hawkins, Saginaw, treasurer; Mrs. Vivian Branyan, Spring Lake, vice president; Miss Rutan; Miss Catherine LaPres, Muskegon, president-elect, and Mrs. Marie Nielsen, Muskegon, recording secretary. Miss Marion Collins, Jackson, (not in photo) is corresponding secretary.

Professional Week

"We look to the professions for decisions and services which will guard our liberties, protect our health, build our homes and schools, our roads and our great industrial complexes; in general, to permit us to live richer, happier lives.

"Michigan is proud of its professional people. It recognizes that the standards of excellence which they have demonstrated in research and in practice have served the public interest well. In doing so they have merited and received national acclaim. Their excellence and number serve as a very real inducement to business, industry and labor to come to Michigan."

The above are excerpts from the proclamation issued by Governor Swainson to set aside February 5-10 as "Professional Week" in Michigan.


"[Banthīne®] . . . effectively inhibits motility of the gastrointestinal and genitourinary tracts. . . . [Pro-Banthīne] is somewhat more potent. . . ."
NEW AND NONOFFICIAL DRUGS 1961
"The value of Banthīne . . . can be considered established. . . . Pro-Banthīne is a more potent cholinergic blocking agent . . . . the incidence of untoward reactions is less."
PRINCIPLES OF MEDICAL PRACTICE
Handbook of Treatment
"[Banthīne]. Extraordinarily effective. . . . Prefer even newer Pro-Banthīne. . . ."
BRITISH PHARMACEUTICAL CODEX 1959
"...diminishes gastric secretion and reduces gastric and intestinal motility. . . . less liable than atropine to produce dryness of the mouth. . . ."
PHARMACOLOGY IN MEDICINE
"The basal gastric secretion of duodenal ulcer patients may be significantly reduced . . . . The pain associated with hypermotility may be promptly relieved. . . ."
GOODMAN and GILMAN
The Pharmacological Basis of Therapeutics
"[Banthīne] . . . has sufficiently selective action . . . to recommend its use as an adjuvant agent. . . . [Pro-Banthīne] cause[s] fewer side effects."
MODERN DRUG ENCYCLOPEDIA AND THERAPEUTIC INDEX
". . . its effect is 2 to 5 times greater than Banthīne and side effects are reduced or absent."
CURRENT THERAPY 1958
"Pro-Banthīne may also relieve pain by its effect on the sympathetic nervous system. It depresses gastric secretion and motility which in turn diminishes pancreatic output."
SAUNDERS
by the book
PRO-BANTHĪNE®
(brand of propantheline bromide)
G. D. SEARLE & CO., CHICAGO 80, ILLINOIS
Research in the Service of Medicine

MAP Congress Speakers Stress Unity; Doctor Leader Re-elected; Doctor LeFevre Honored

A lineup of speakers seldom equalled at any two-day conference in the state appeared before Michigan's professional men and women attending the Third Annual Congress of the Professions at Kellogg Center, February 9 and 10.

Headlined by former Ambassador John Davis Lodge, the program featured Governor John B. Swainson, U.S. Congressman August E. Johansen, Dr. Harlan Hatcher, president of the U. of M., Chief Justice John R. Dethmers and a score of nationally-known speakers.

Likening the strength of united professionalism to the strength of the United Nations, Ambassador Lodge told the professional conferees that "unity is the most important item in our arsenal of power."

"Your organization, which is gaining national recognition, can help provide the kind of healthy balance which we need in order to maintain the stability and freedom of our institutions" he said to more than 200 members and guests at the annual banquet. "It is important that we cross thought barriers as well as sound barriers . . . a nation's greatness is measured by its ability to make decisions . . . this country was founded on a sense of individual responsibility, make *your* influence felt. . . ."

Governor Swainson also urged the professions to "build a bridge" toward better understanding among allied professions, to promote further professional development, and to stimulate participation, as citizens, in public affairs—local, state and national.

The importance of united professionalism was not only emphasized over and over by the speakers but also by the national professional leaders representing the seven member professions of MAP and delegates from state professional societies from many states at the opening meeting of the Congress devoted to the American Association of the Professions, Friday morning.

Afternoon sessions, at which experts in the fields of education, legislation, public relations and business techniques and services testified, also pointed up the advantages of united action. Subject matter at these Hearings included "The Professional Image", a discussion devoted to how the professional practitioners can work together to improve the public understanding of the professions; "Professional Environment and Professional Independence", a legislative Hearing at which Congressman Johansen and state legislators testified; "Prospecting for the Best Educational Potential", and "Making Your Money Work for You", with top business authorities providing advice and information about retirement plans, insurances and other group business services.



Congratulations are extended to William M. LeFevre, M.D., right, Muskegon, by John G. Nolen, D.D.S., Lansing, president, at the MAP Congress following the presentation of the "President's Key" to Doctor LeFevre, the first president of MAP.

Luther R. Leader, M.D., Detroit, was re-elected to the MAP Board of Directors for a two-year term at the Saturday morning business meeting. In addition to Dr. Leader, MSMS is represented by three other members on the Board. They are: William M. LeFevre, M.D., Muskegon; John W. Rice, M.D., Jackson, and Gilbert B. Saltonstall, M.D., Charlevoix. Dr. LeFevre and Dr. Saltonstall were members of the founding Board of MAP and were honored at the Founders luncheon at which Dr. Harlan Hatcher was the main speaker.

Dr. LeFevre was presented the President's Key at the annual president's dinner-dance, Saturday, in recognition of his service as MAP's first president.

"Medicine in Atomic Age" Theme for AMA Meeting

"Medicine in the Atomic Age" will be the theme of the scientific program for the 111th Annual meeting of the American Medical Association June 24-28 in Chicago.

Eminent physicians and research scientists from throughout the nation will bring to the medical men in attendance the latest word on developments and findings in research and in therapy in many of the major disease areas confronting the physician in practice.

The eight half-day general scientific meetings are indicative of the broad scope of the scientific program of the annual meeting. General scientific meetings will be presented on Inhalation Therapy; Clinical Cardiology and Anticoagulant Therapy; Diagnostic Problems and Exfoliative Cytologic Methods; Tissue Transplantation; Inflammatory and Ulcerative Diseases of the Small Intestine; Teenagers' Problems; Mental Health, and Nuclear Medicine.

All of the scientific and industrial exhibits and all of the general meetings and meetings of the 21 sections will be held under one roof for the first time. Site of the meeting will be Chicago's giant new auditorium and convention hall, McCormick Place, newly opened on the shore of Lake Michigan a short distance south of the loop.

McCormick Place is completely air conditioned and is well supplied with restaurants and other facilities to serve the 15,000 to 17,000 physicians expected to register for the meeting.



Corporation Tax for Physicians

The question of being able to incorporate and benefit from many tax provisions such as setting up retirement plans as a business expense has interested physicians and stimulated their support of the Keough type legislation for many years.

Some states have taken action to correct the situation partially. In Illinois, Ohio, Pennsylvania, Tennessee, Alabama and Georgia, members of all the professions may form associations and be under corporation type tax. In Wisconsin, Oklahoma and Florida, all professions may set up corporations. South Dakota, Minnesota, Arkansas permit physicians only to establish corporations. In Michigan, architects may incorporate.

"but why don't you tell my patients...?"

We pharmaceutical manufacturers, over the past several years and in various ways, have been trying to tell the story of the drug industry's role as a member of the American health team, and thus to correct certain unfortunate misconceptions. And all along we have looked upon you of the medical profession, on whose good will we are so dependent, as perhaps our chief audience.

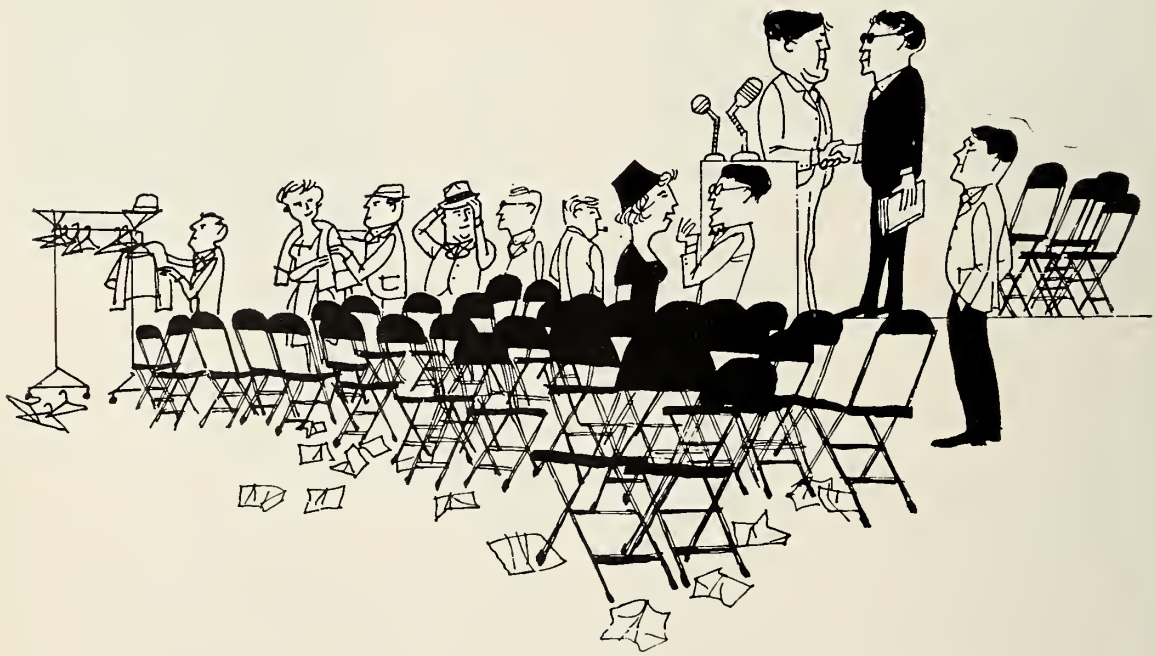
But now we wonder . . . because so many of you have said to us lately, either orally or in writing, "Why are you telling us this? Our patients are the ones who really need to hear this story."

Thank you for pointing out this need; and for the aid some of you have already given us. We think we can now be of still more help in answering many of the questions your patients are asking:—

A good number of us have Speakers Bureaus. If you will designate the place and time, we will have an industry speaker on hand to address any favorite organization of yours . . . be it a civic, political, or church group; your local PTA; a social club, or a fraternal order.

You have only to send a letter or post card, giving the particulars, to the Office of Public Information, Pharmaceutical Manufacturers Association, 1411 K Street, N.W., Washington 5, D.C. (or phone, National 8-6435). They will make the necessary arrangements* (or promptly let you know if there's any hitch).

*But please try to give at least three weeks' notice.



Negligence in Case of Cardiac Arrest

A woman patient suffered a cardiac arrest during an exploratory laparotomy operation performed at a Navy hospital in Florida. The arrest was noticed immediately after the first incision was made. Ephedrine was injected promptly, but did not restore heart action. Another surgeon was called in, and he performed a thoracotomy and cardiac massage which restored the heart action. A period of materially more than four minutes, however, elapsed from the time of the cardiac arrest to the restoration of circulation.

As a result of the interruption of circulation, the patient suffered brain damage which left her in a condition similar to that of a permanent paraplegic—a vegetative condition. Suit was brought against the United States under the Federal Tort Claims Act. Damages totalling $78,503.78 were awarded by the Federal District Court in Miami.

The court said that it is generally accepted in the medical profession that a surgeon undertaking "a surgical procedure should possess, as a part of his qualifications, the ability to perform a thoracotomy and manual cardiac massage." It held that the hospital personnel were negligent in failing to diagnose cardiac arrest and restore circulation of blood and oxygen to the brain. Declining to apply a local community standard, the court announced that "it cannot be considered accepted medical practice in any community to permit the brain to suffer irreversible damage as a result of an unreasonable lapse of time materially in excess of four minutes."—*Kolesar v. United States*, 198 F. Supp. 517 (DC, S. D., Fla., Aug. 11, 1961)

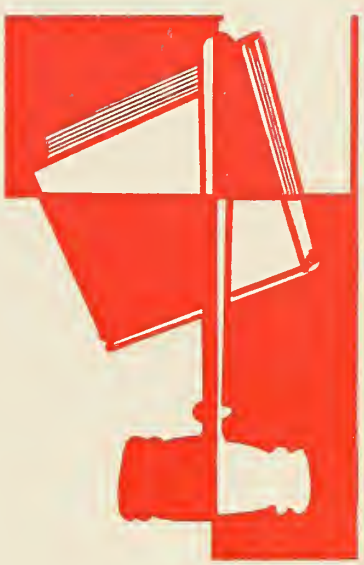
Dear Doctor,

I have been requested to furnish you a rough draft of a letter that can be sent to a patient whom you no longer wish to treat.

Without knowing the precise circumstances under which you wish to withdraw, I can do no better than to furnish you a copy of a suggested letter of withdrawal that is among the forms published by the American Medical Association. This can, of course, be adapted to fit the circumstances of your particular case.

Incidentally, I might suggest to you that this is just one of a number of very well prepared and excellent forms that are published by the law department of the American Medical Association under the title of "Medical Legal Forms." A copy of this book of forms may be obtained if you wish to have it from American Medical Association, Law Department, 535 North Dearborn Street, Chicago 10, Illinois.

Sincerely yours,
LESTER P. DODD,
MSMS Legal Counsel



MICHIGAN DEPARTMENT OF HEALTH

ALBERT E. HEUSTIS M.D., State Health Commissioner

Screening Tests Show Hearing Loss On Increase among Michigan School Children

Hearing loss has been increasing steadily among Michigan school children since 1958. In that year, 2.8 per cent of the children tested in Michigan's hearing conservation program had some degree of hearing loss. Last year, 4.01 per cent of the 420,663 children tested (16,892) failed the screening tests.

If these figures are projected to the more than two million school-age children in the state, it is a fair assumption that approximately 82,000 have subnormal hearing of varying degree.

What is causing this rising incidence of hearing loss? There are a number of theories, but more and more otologists are beginning to point a finger of suspicion at the frequent and indiscriminate use of antibiotics in combating upper respiratory and middle-ear infections in children, which in turn may be prompting serous otitis.

In an article appearing in the May, 1960 issue of the *American Medical Association Journal of Diseases of Children*, Drs. Marvin and Richard Freeman said:

"Although the various chemotherapeutic agents and antibiotics have decreased markedly the purulent complications of middle-ear disease, their widespread use may be the cause of the augmented number of middle-ear effusions now being seen."

Serous otitis is also being observed more and more frequently in association with adenotonsillectomies, according to Dr. Sidney S. Samuels.

The condition is difficult to detect because it produces no pain and manifests no symptoms other than a gradual loss of hearing. Children with serous otitis-caused hearing loss are frequently considered by parents and teachers to be vague or inattentive. Since the hearing loss is gradual, most children aren't aware of what they are missing and consequently don't complain of not hearing well.

For this reason, mass screening tests are important because of their effectiveness in ferreting out previously undiscovered, unsuspected cases of hearing loss.

Michigan has a five-phase program administered through local health departments that has been in operation since 1942 to discover and treat children with hearing problems.

The first two steps in the testing program are handled by local technicians trained by the state health department. At present, there are 51 audiometric technicians working with local health departments in 64 counties.

Step two is a threshold screening test, to determine the points at which pure tones are first heard. Following the second test, those children with hearing loss sufficient enough to warrant medical or educational attention are referred to otological clinics sponsored by local health departments.

The otological clinics were started in 1949 at the suggestion of the sub-committee on hearing defects of the Michigan State Medical Society's Child Welfare Committee. Since then, clinics have been held in 82 counties, with over 100 otologists participating.

Last year, 6,813 children with previously unknown losses were seen by otologists at these clinics.

The clinics are screening examinations to determine medical needs. No treatment is administered. However, the parents consult with the otologist conducting the clinic and the child is referred to the family physician for treatment. Diagnostic information obtained at the clinics is available to the physician.

Approximately three-fourths of the hearing defects thus discovered can be corrected. Frequently, removal of nose and throat obstructions, along with aspiration of fluid from the middle ear restores hearing to normal.

An experimental screening program for infants seven to thirteen months is in the planning stages, and it is hoped that pilot studies can be conducted in selected areas this spring.

The seven to thirteen month age group is selected because this seems to be a critical stage in a child's auditory development. Before seven months, a child usually has not developed "localizing" ability, and after 13 months is frequently sophisticated enough to ignore many sounds.

The proposed technique for the hearing test calls for the parent to hold the baby and, while the child is visually attracted by some object held directly in front, various familiar sounds are produced about 18 inches to the side of each ear separately.

Crumpling tissue paper, clinking a spoon in a cup, or putting a nipple on a bottle produce sounds that a child with normal hearing will invariably respond to by turning its head in the direction of the sound.

No response may indicate a hearing defect which can delay or inhibit speech development and learning. Use of hearing aids or other techniques on infants discovered by such a test either in mass screening programs or by the family physician or pediatrician can make the difference between a normal or retarded child.

Pathology Comment

Items published here are provided by the Michigan Pathological Society

Laboratory Tests for Syphilis

A decline in the number of new cases of syphilis reported annually was noted in the late 1940's and early 1950's in association with the intensive Public Health case finding and treatment programs. Since then, however, an increase in incidence of infectious syphilis[1] has been reported, particularly in teenage persons.

The diagnosis of syphilis is made by the attending physician from the history and physical examination of the patient and from the results of laboratory tests for syphilis. The older serologic tests for syphilis (Kahn, Kolmer, Kline, VDRL, etc.) use a synthetic or nontreponemal antigen. These tests are quite sensitive but in many serology laboratories a large number of false-positive results are obtained with them. In selected population groups from 40 to 50 per cent[1,2] of persons positive to these tests do *not* have and never have had syphilis.

To increase the specificity of serologic tests for syphilis, antigens have been developed which consist of the whole Treponeme or an extract thereof. A large number of different tests using an antigen of this kind has been investigated. At the present time the tests which appear most accurate and most practical for the routine serology laboratory are the Reiter Protein Complement Fixation (RPCF) test and the Treponema Pallidum Complement Fixation (TPCF) test. The Treponema Pallidum Immobilization (TPI) test is highly specific and sensitive but it is practical only in specially equipped laboratories. Any of these three tests, when negative, make a diagnosis of syphilis unlikely except in very early lues.

A recent study[3] evaluated the specificity of the RPCF and Quantitative Kolmer tests in persons with reactive VDRL results. The RPCF was falsely positive in 16 of 359 cases or 4.4 per cent. In 164 patients with a reactive VDRL, non-reactive RPCF and either reactive or non-reactive Kolmer test, 83 or 50 per cent were false positive.

Currently in the State of Michigan a regulation requiring that laboratories report all positive and doubtful serologic tests for syphilis to Public Health authorities is being considered. The authorities are interested in finding persons with a diagnosis of syphilis, and assuring that they secure appropriate treatment and obtaining contact information in order to ascertain the source of possible distribution of the disease. Since a positive serologic test for syphilis does not constitute a diagnosis of syphilis this regulation appears unwarranted. Furthermore it would violate the principle that the results of laboratory tests are confidential information, to be reported by the laboratory only to the patient's attending physician. Syphilis is diagnosed by the physician who sees and examines the patient and *not* by a laboratory test. Under present regulations the physician making the diagnosis is obligated to report such cases to Public Health authorities. This must be done conscientiously for any Public Health Program to function effectively. Physicians should also make certain that they understand the implications of the readings reported from serological tests on their patients.

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2. Rein, C. R. and Kelcec, L. C.: Biologically false positive serologic reactions. (Editorial) J.A.M.A., 163:1046, 1957.
3. Patton, R. B. and Gaurie, A.: An evaluation of the Reiter protein complement fixation test in the diagnosis of syphilis. Amer. J. Clin. Path., 36:383, 1961.

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Wayne Alumni Day Set for May 2

Wayne State University Medical School will hold the Annual Clinic Day on May 2 at the Sheraton-Cadillac Hotel at Detroit. Alums will hear more about the event when they visit the Alumni hospitality suite at the Michigan Clinical Institute at the Sheraton-Cadillac, February 28, March 1 and 2.

* * *

HONORED—James M. Grost, M.D., St. Johns, received the "Distinguished Service Award" of the St. Johns Junior Chamber of Commerce. Active in many civic affairs, Doctor Grost is a 1952 graduate of the University of Michigan Medical School.

* * *

RECEIVES GRANT—Martha R. Westerberg, M.D., Ann Arbor, received a $2,500 study grant from the Myasthenia Gravis Foundation, New York.

* * *

CITED—Ethel T. Calhoun, M.D., Birmingham, received recognition from the Oakland County Medical Society recently for "her years of devoted service to the children and citizens of Oakland County." Identified with the Kenny method of treatment for polio since 1943, she conducts the Kenny Rehabilitation Outpatient Center at Ferndale.

* * *

HONORED BY AHA—Warren B. Cooksey, M.D., Detroit, recently was given the American Heart Association's "Award of Merit." Doctor Cooksey, founder of the Michigan Heart Association, has been a member of the AHA since 1950.

* * *

GIVEN AWARD—Charles H. Frantz, M.D., Grand Rapids, received the first "Distinguished Service Award" of the Mary Free Bed Children's Hospital for his service to the hospital. Former chief of staff at the hospital, Doctor Frantz now directs the expanding outpatient clinics.

* * *

HONORED—Bert Van Der Kolk, M.D., Hopkins, received the American Cancer Society's "Top Crusader Award." He served eight years as president of the Allegan County ACS unit.

* * *

NOW IN BOSTON—Harold F. Schuknecht, M.D., formerly of Detroit, now is professor of Otology and Laryngology at the Harvard Medical School and chief of otolaryngology at the Massachusetts Eye and Ear Infirmary at Boston.

* * *

SPEAKS TO SIGMA XI—Klaus Hofmann, M.D., Pittsburgh, addressed a joint meeting of the Wayne State University chapter of Sigma Xi and The Edsel B. Ford Institute for Medical Research in

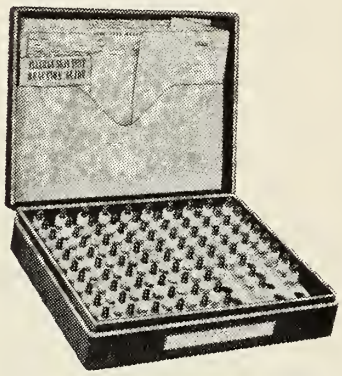


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January in the Henry Ford Hospital auditorium. His topic was "Structure-Function Relations in the Corticotropin Series."

* * *

NAMED PROFESSOR—Doctor Morton Levitt has been promoted to professor of psychology in Wayne State University's College of Medicine by the University's Board of Governors. He is also assistant dean of the College of Medicine in charge of student affairs.

* * *

EXAM SCHEDULED—The American Board of Obstetrics and Gynecology reports that the next oral and clinical examinations (part II) for all scheduled candidates will be held at the Edgewater Beach Hotel, Chicago, April 9 through 14. New and reopened applications, and requests for re-examination in 1963 will be accepted up to July 1, 1962. Application forms may be obtained by writing to Robert L. Faulkner, M.D., 2105 Adelbent Road, Cleveland 6, Ohio.

* * *

NEW POSITION—Thomas C. Paton, with Michigan Medical Service and Michigan Hospital Service for 14 years, is now executive director of Minnesota Medical Service in St. Paul, Minnesota.

* * *

SPEAKER—W. N. Hubbard, Jr., M.D., dean of the University of Michigan Medical School, will give the major address at the 14th convention of Alpha Epsilon Delta, international premedical honor society, at Toledo, Ohio, April 26-28. His topic will be "The Changing Role of the Physician."

* * *

WAYNE GRANTS—The Wayne State University's Board of Governors recently accepted $20,050 from the U. S. Public Health Service for three projects. The largest was $19,550 to continue research entitled "Formation and Properties of Prothrombin Derivatives" under the direction of Walter H. Seegers, M.D., of the College of Medicine.

Wayne also received $8,100 from the McGregor Fund for the establishment of a loan fund for students in the doctoral training program in clinical psychology.

A Wayne College of Medicine graduate student in anatomy was awarded a $7,000 research fellowship from the American Heart Association for a year beginning July 1. The awardee, Martin James Hollenberg, M.D., St. Clair Shores, is also a junior resident in surgery at Detroit's Receiving Hospital.

* * *

OPHTHALMOLOGY RESEARCH GRANT—Research to Prevent Blindness, Inc., a new national voluntary health foundation, announced a $5,000 grant to The University of Michigan Medical Center for eye research. The U-M Department of Ophthalmology was one of 19 organizations in the United States to share in the total award of $95,000 made by the foundation.

* * *

RETIRES—Charles S. Kennedy, M.D., Detroit, has retired from the University of Michigan Board of Regents with a $10,000 scholarship in his name. The scholarship was presented by Miss Joyce L. Harlan, 20, U-M coed from Birmingham, and her parents, C. Allan Harlan, Birmingham, member of the M.S.U. Board of Trustees, and Mrs. Harlan. The gift recognizes difficult surgery performed by Doctor Kennedy on Joyce 19 years ago. Doctor Kennedy, 74, com-

pleted 16 years on the Board of Regents. He was graduated from the U-M Medical School in 1913.

* * *

GIVEN GRANTS—Two Michigan men are using new grants from the Tobacco Industry Research Committee to pursue research work.

Richard J. Bing, M.D., Detroit, has two projects entitled "The Measurements of Coronary Blood Flow with a System Using Coincidence Counting" and "The Effect of Nicotine and Change in Heart Rate on Cardiac Metabolism and Related Subjects."

Richard U. Byerrum, Ph.D., East Lansing, is working on a project entitled, "Biosynthesis of the Pyridine Ring of Nicotine."

* * *

HEADS DRIVE—Roy A. Morter, M.D., retired superintendent of Kalamazoo State Hospital, is chairman of the fund campaign to build an Interfaith Chapel at the Hospital. The goal is $100,000.

* * *

APPOINTED MANAGER—James T. Beers of Atlanta, Ga., a long-time friend of Michigan physicians, has been appointed manager of a new department, the Convention Bureau of the Coca-Cola Company. He will coordinate all national conventions in which the company participates, several hundred conventions yearly.

* * *

CORRECTION—The titles under the hospitals on the cover page of the December JOURNAL were in error. The Community Hospital and the Battle Creek Sanitarium Hospital names were switched inadvertently.

* * *

HONORED—Rolland B. Doig, M.D., Memphis, received a 20-year certificate and service pin recently from the Selective Service Board in recognition of "outstanding public service."

* * *

CONTINUE STUDIES—Wayne State University has received a grant of $15,262 to continue studies in postnatal effects of "in utero" irradiation of the rat. J. F. Lofstrom, M.D., and Melvin R. Sikov, M.D., are directing the research.

* * *

RETREAT CLOSES—St. Joseph's Retreat, a private hospital for the mentally ill at Michigan and W. Outer Drive in Dearborn, closed February 1. The property will be sold. Hospital Administrator Sister Anna Marie, of the Daughters of Charity of St. Vincent de Paul, said progress in the treatment of the mentally ill had made the hospital obsolete. The hospital was opened in 1860 by the Roman Catholic order.

* * *

RESEARCH—The Medical School at the University of Michigan recently received $313,017 from the National Institutes of Health to support general research.

The U-M Cerebral Palsy Diagnostic Clinic received $1,250 from the United Cerebral Palsy Association of Michigan to help support Diagnostic services for patients throughout the state.

* * *

NAMED—C. Clarence Beets, M.D., and William L. Rodgers, M.D., both of Grand Rapids, have been appointed co-medical directors of the Preferred Insurance Company, of Grand Rapids.

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MEETINGS USA

April

American Academy of General Practice, Las Vegas, Nevada, April 6-13. Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Missouri, Director.

American Academy of Neurology, Statler-Hilton Hotel, New York City, April 23-28. Mr. Thomas D. Swedien, 4307 E. 50th St., Minneapolis 17, Executive Secretary.

American Academy of Pediatrics Spring Meeting, Statler-Hilton Hotel, New York City, April 30-May 2. Dr. E. H. Christopherson, 1801 Hinman Avenue, Evanston, Illinois, Executive Director.

American Association for Thoracic Surgery, Chase-Park Plaza Hotels, St. Louis, April 16-18. Dr. Henry T. Bahnson, Johns Hopkins Hospital, Baltimore 5, Secretary.

American College of Obstetricians and Gynecologists, Palmer House, Chicago, April 2-5. Mr. Donald F. Richardson, 79 West Monroe Street, Chicago 3, Executive Secretary.

American College of Physicians, Bellevue-Stratford, Philadelphia, April 9-13. Dr. Edward C. Rosenow, Jr., 4200 Pine St., Philadelphia 4, Executive Director.

American College of Surgeons—Trauma, John B. Murphy Memorial Auditorium, 50 East Erie Street, Chicago, April 25-28.

American Society of Internal Medicine, Benjamin Franklin Hotel, Philadelphia, April 6-8. Mr. Albert V. Whitehall, 350 Post St., San Francisco 8, Executive Director.

Postgraduate Course in Rheumatology, University of Michigan Medical Center, April 4-6.

May

American Nurses Association, Detroit, May 14-18. Mrs. Judith G. Whitaker, R.N., 10 Columbus Circle, New York 19, Executive Secretary.

American Ophthalmological Society, The Homestead, Hot Springs, Virginia, May 28-30. Dr. Joseph A. C. Wadsworth, 108 E. 68th St., New York 21, N. Y., Executive Secretary.

American Pediatric Society, Traymore Hotel, Atlantic City, May 10-11. Dr. Conrad M. Riley, 2800 East Cedar Avenue, Denver 9, Secretary.

American Urological Association, Bellevue-Stratford Hotel, Philadelphia, May 14-17. Mr. William P. Didusch, 1120 N. Charles St., Baltimore 1, Executive Secretary.

Illinois State Medical Society, Hotel Sherman, Chicago, May 13-17. Mr. Robert L. Richards, 360 North Michigan Avenue, Chicago 1, Executive Administrator.

Ohio State Medical Association, Neil House, Columbus, May 13-17. Mr. Charles S. Nelson, 1005 Hartman Theater Building, 79 East State St., Columbus 15, Executive Secretary.

Student American Medical Association, Mayflower Hotel, Washington, D. C., May 9-13. Mr. Russell F. Staudacher, 430 North Michigan Avenue, Chicago 11, Executive Director.

Wisconsin State Medical Society, Schroeder Hotel, Milwaukee, May 8-10. Mr. Charles H. Crownhart, 330 East Lakeside St., Madison 5, Secretary.

June

American Diabetes Association, The Conrad Hilton, Chicago, June 23-24. J. Richard Connelly, 1 East 45th St., New York 17, Executive Director.

American Geriatrics Society, Palmer House, Chicago, June 18-20. Dr. Edward B. Allen, 21 Greenridge Avenue, White Plains, New York, Secretary.

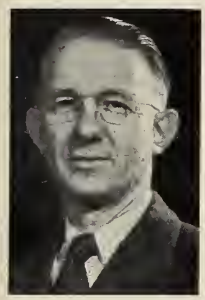
American Medical Association, Annual Meeting, Chicago, June 24-28. Dr. F. J. L. Blasingame, 535 North Dearborn, Chicago 10, Executive Vice-President.

Woman's Auxiliary to the American Medical Association, Pick-Congress Hotel, Chicago, June 24-28. Miss Margaret N. Wolfe, 535 North Dearborn St., Chicago 10, Executive Secretary.

September

Twelfth International Congress of Dermatology, Washington, D. C., September 9-15. (Charles S. Livingood, M.D., Detroit, and Hermann Pinkus, M.D., Detroit, will be Secretary and Assistant Secretary. Udo J. Wile, M.D., Ann Arbor, is one of the Honorary Vice Presidents.)

* * *



CANCER COMMITTEE ELECTS LEADERS—B. E. Luck, D.D.S., Lansing, is the new chairman of the Michigan Cancer Coordinating Committee. He was elected to succeed J. W. Hubly, M.D., Battle Creek.

Chosen as first vice-chairman was Henry J. VandenBerg, Jr., M.D., Detroit, and as second vice-chairman, J. W. Cowan, M.D., Lansing. Wm. J. Burns was elected to succeed himself as secretary-treasurer.

* * *

NEW PRESIDENT—O. D. Stryker, M.D., St. Clair Shores, is the new president of the State Board of Registration in Medicine, elected at the annual meeting of the board.

B. M. Harris, M.D., Ypsilanti, was reappointed by the Governor as a member of the board.

* * *

CARDIOLOGY COURSE—The American College of Physicians will offer a second-quarter course May 14-16 in "Fundamentals and Applied Aspects of Cardiology." Richard J. Bing, M.D., of Wayne State University College of Medicine, is the director.

* * *

LIST U-M COURSES—A busy schedule of postgraduate courses is offered at the University of Michigan Medical Center this spring: April 9-11, Pulmonary Diseases; April 12-14, Allergy; April 16-20, Endocrinology and Metabolism; April 23-27, Recent Advances in Therapeutics; April 4-6, Rheumatology; April 23-25, Ophthalmology; April 19-21, Otolaryngology; April 16-May, Anatomy, Obstetrics and Gynecology; April 16-June 1, Anatomy, Surgery; May 7-18, Pathology, Obstetrics, Gynecology.

* * *

PLAN CANCER INSTITUTE—"An Institute on Cancer Control" will be offered at the University of Michigan, June 25-30, by the U-M School of Public Health. Among the cooperating groups is the Michigan Cancer Coordinating Commission.

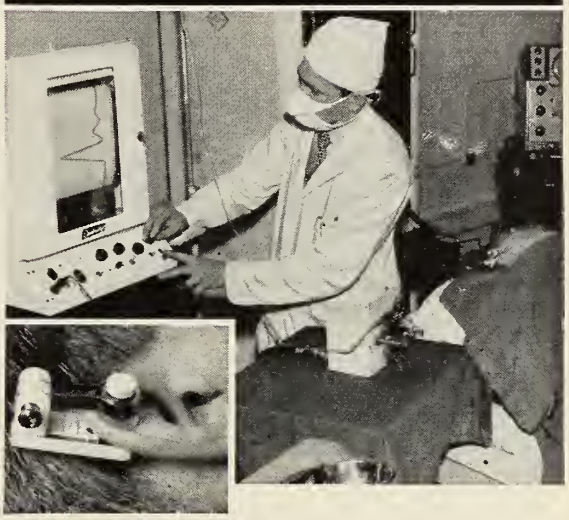
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ENTERED IN CONGRESSIONAL RECORD—An editorial by John G. Slevin, M.D., Detroit, in the *Detroit Medical News* (Vol. LIII, No. 26), appeared in the Congressional Record of January 16, 1962. The editorial was sent by E. S. Parmenter, M.D., of Alpena, to Congressman Victor A. Knox, who had it entered in the Congressional Record. The general theme of the editorial was "let us stop this silly business of racing the Russians in space."

* * *

PLANS WORKSHOP—The MSMS Committee on Maternal Health has announced a "Conference on Maternal and Perinatal Mortality" at the Gull Lake Conference Center of Michigan State University for May 17-18.

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IN MEMORIAM

LEON C. BOSCH, M.D., sixty-eight, distinguished Grand Rapids surgeon and obstetrician for 40 years, died January 17, 1962.

Doctor Bosch was formerly chief of obstetrics and gynecology at Butterworth Hospital and director of its training program for residents and interns in obstetrics. After graduating from Rush Medical College, Chicago, in 1919, he interned at Kansas City General Hospital and Chicago Lying-In Hospital and did postgraduate work at Edinburgh College, Scotland, in 1931. He joined Butterworth Hospital staff in 1922.

Doctor Bosch was a Fellow of the American College of Surgeons and a Diplomate of the American Board of Obstetricians and Gynecologists.

* * *

EDWIN G. DIMOND, M.D., seventy-three, Flint physician for half a century, died January 13, 1962.

Doctor Dimond opened a general practice in Flint in 1910. After 1918, he limited his practice to eye, ear, nose and throat, becoming one of Flint's leading specialists. He retired from practice in 1960.

A graduate of Wayne State University College of Medicine, Doctor Dimond was a Life Member of the Michigan State Medical Society, a Fellow of the American College of Surgeons and a Diplomate of the American Board of Otolaryngology.

* * *

CLAYTON J. ETTINGER, M.D., eighty-four, Highland Park physician, died January 13, 1962.

A native of Birmingham, Doctor Ettinger received his medical degree from Wayne State University College of Medicine. He was a Life Member of the Michigan State Medical Society.

Doctor Ettinger was the founder of Great Lakes College of Detroit and its president.

* * *

HARTHER L. KEIM, M.D., sixty-nine, Detroit, associate professor of dermatology at Wayne State University College of Medicine for nearly 30 years, died January 2, 1962.

Doctor Keim was graduated from the University of Michigan Medical School in 1917 and was named associate professor of dermatology there. He served as a lieutenant in the Army Medical Corps during World War I and during the 1926-27 academic year was exchange professor at the Peiping Union Medical School in China under a program of the Rockefeller Institute.

In 1929, he left Ann Arbor to join the Wayne State University medical faculty. He retired from teaching in 1957.

Memberships included Nu Sigma Nu, Alpha Omega Alpha and Sigma Xi fraternities, Academy of Dermatology, American Dermatological Association and the Detroit Dermatological Society. Dr. Keim was a consultant at Bon Secours and Jennings Memorial Hospitals. He served as a member of the MSMS Venereal Disease Control Committee for 20 years.

* * *

ERNEST M. LING, M.D., seventy-eight, Spring Lake, former Hemlock physician, died January 14, 1962.

A graduate of Detroit College of Medicine (now Wayne State University) in 1907, Doctor Ling practiced medicine in Hemlock until his retirement in 1948, when his son, Kenneth C. Ling, M.D., took over his practice.

He was a Retired Member of the Michigan State Medical Society.

* * *

HOLLIS L. SIGLER, M.D., sixty-three, prominent Howell physician, died January 20, 1962 in a fire which destroyed his home.

A general practitioner, Doctor Sigler was graduated from the University of Michigan Medical School in 1924. He interned at Harper Hospital in Detroit for two years before beginning practice in Howell.

He was a past president of the Livingston County Medical Society and a former Delegate to the Michigan State Medical Society House of Delegates.

AN OPINION

James B. Conant, Ph.D., former president of Harvard and U. S. High Commissioner for Germany, in his new book, *Slums and Suburbs*: "It is far more difficult in many communities to obtain admission to an apprentice program which involves union approval than to get into the most selective medical school in the nation."

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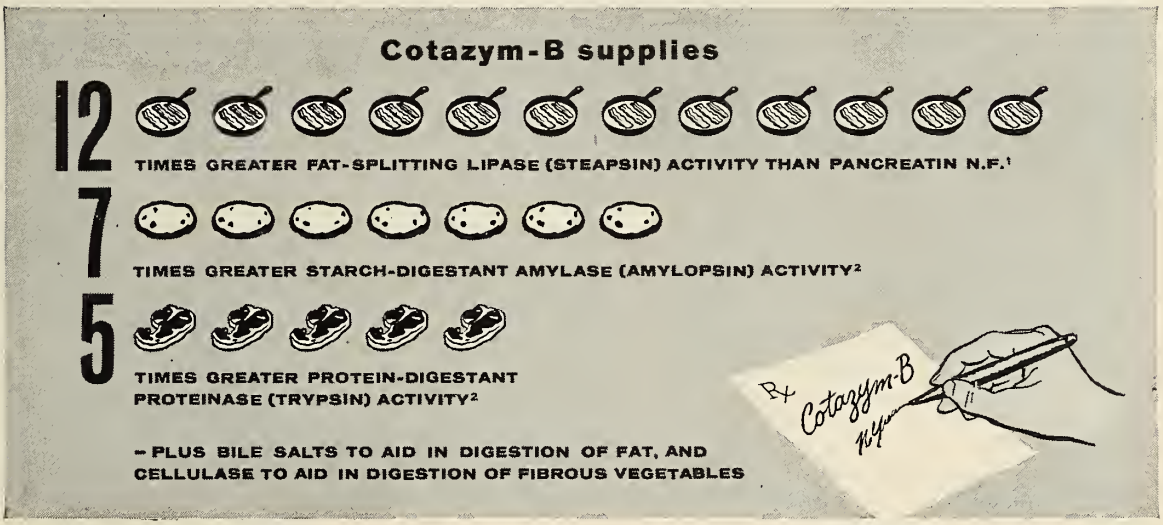
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Michigan Authors

George W. Morley, M.D., Ann Arbor, "Once a Cesarean, Always a Cesarean," *Journal American Medical Association,* December 23, 1961.

Richard D. Stewart, M.D. and **Charles A. Sanislow, M.D.,** Ann Arbor, "Silastic Intravenous Catheter," *The New England Journal of Medicine,* December 28, 1961.

Rosalie J. Ging, M.D. and **Gerald Hover, Ph.D.,** Ann Arbor, "Electroencephalographic Study of Open-Ward Patients," *Journal American Medical Association,* December 30, 1961.

Thomas P. Haynie, M.D., Bruce H. Stewart, M.D., Mohamed M. Nofal, M.D., Edward A. Carr, Jr., M.D. and **William H. Beierwaltes, M.D.,** Ann Arbor, "Diagnosis of Renal Vascular Disease and Renal Tumors by Photoscanning," *Journal American Medical Association,* January 13, 1962.

Brita McLean, M.D., Frank G. Talbot, M.D. and **William Jend, Jr., M.D.,** Detroit, "Uterine Cancer Detection by the Tampon Method," *Industrial Medicine and Surgery,* January, 1962.

Irving I. Edgar, M.D., Detroit, "The Psychoanalytic Approach to Shakespeare's Hamlet," *Canadian Psychiatric Association Journal,* December, 1961.

John M. Dorsey, M.D., Detroit, "Psychoanalytic Appreciation of American Government," *The American Image,* Vol. 18, No. 3, Fall, 1961.

Blue Shield Payments Up

More than $613,600,000 was paid out by the 75 Blue Shield Plans for surgical-medical care rendered members during the first nine months of 1961.

John W. Castellucci, Chicago, executive vice president of the National Association of Blue Shield Plans, indicated that the amount represented an all-time high for a nine-month period.

"The record payment represented more than 90 per cent of the total income of these medical-surgical plans," Mr. Castellucci reported. The plans spent less than 10 per cent of their total income during the nine-month period for administrative expenses.

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Editorial Comment

On Accident Prevention

From *New England Journal of Medicine*
Vol. 265, No. 11

Accident prevention is a controversial subject among edical men today. Why should physicians concern emselves with a problem that might just as well be ndled by paramedical and lay groups?

Industry and insurance companies motivated by eco-mic considerations underwrite programs for accident evention, whereas physicians continually improve the re and treatment of accidental injury. Is not such a vision of labor proper?

Many laboratory research projects result in unques-nable profit to the nation's health, pique its curi-ity and flatter its self-esteem. Why then, should ysicians enter a field for which they are ill prepared ademically and into which they are rarely invited their patients? They may not only fail to derive satisfaction of having "cured" someone but, indeed, y be accused of furthering self-interest if, for in-nce, they demand physical examinations for drivers t would result in remuneration for physicians.

Even if the physician should decide that it is his duty to use his specialized knowledge for public education, what does he really know about accident prevention? Are his data valid, or is much of what he "knows" antiquated, smacking of folklore, or simply false? There is little in his training that equips him to do the job of a safety engineer or a human engineer. Must he try to stretch the area of his "specialized knowledge" to include all facets of human activity, or is this precluded by definition?

Accidents kill more people to the age of thirty-seven than any disease or degenerative state, but bigotry and prejudice may lead to violent loss of life. Wars kill and cripple; yet physicians are not called upon to lead the world to peace.

Where lies the responsibility of the individual physician?

Accident prevention differs from the problems of world peace and brotherhood by being, at least seemingly, more amenable to scientific investigation. This amenability may lie (to a great part) in its posing less obvious obstacles to scientific objectivity due to anxieties and prejudices in the observer that the other problems inevitably stir up. This allows one to apply one's imagination and talents to this problem so that it can be attacked.

Physicians, co-operating with many other groups, can supply needed leadership in accident-prevention pro-

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grams. Who more than the physician who has cared for a child with a 40 per cent burn is motivated to initiate such programs? Who more than the pediatrician or family doctor is in a position to advise parents of preschool children on accident hazards? Indeed, what other professional group even has contact with the preschool child and his family? It is in the tradition of medicine to advise, to co-ordinate, to educate, even if it means that the answers that are given must be experimental—tentative hypotheses whose demonstration or rejection will be proved only after much long trial and observation. Every advance in the field of preventive medicine has been met by criticism and active opposition. Yet immunization programs, improved nutrition, improved sanitation and insect control are saving thousands of lives. The answer to the question of medicine's responsibility in accident prevention lies in the fact that there is a problem (needless lives lost), and that physicians, as professionals dedicated to improving their patients' health, must accept the challenge.

Physicians can take the leadership in accident prevention on several levels: most importantly with their own patients by identifying and educating families and individuals most at risk; by co-operating with other groups interested in accident prevention; and especially by formulating and participating in research on the causes of accidents and their most effective prevention.

My, How You Have Grown in Twenty-five Years!

Detroit Free Press, November 2, 1961

Social Security in Detroit marks its twenty-fifth birthday Saturday.

When the first Social Security office opened in Detroit, November 4, 1936, on the sixth floor of the First National Building on Cadillac Square, it got little notice.

The Detroit office was one of the first in the country but people were interested in the presidential election in which Franklin Roosevelt defeated Alf Landon on the previous day.

In 1940, less than 4,000 people in the Detroit area were getting $74,000 a month in Social Security benefits. Now, more than 280,000 people draw nearly $21,000,000 a year.

Statewide benefits for 1960 totaled $525,000,000. Since 1940, about a million Michigan people have received $2,750,000,000.

And instead of just one Detroit office, there now are six throughout the Detroit area.

Benjamin D. Waechter, Social Security district manager, completed twenty-five years with the administration last Thursday. Waechter, a University of Michigan graduate, has headed the Detroit office since 1942.

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The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

TRAUMA. Medicine—Anatomy—Surgery—For Lawyers. Editor-In-Chief—Marshall Houts, LL.B. Executive Editor (Medcal)—Edward R. Pinckney, M.D.; Managing Editor (Medical)—Robert S. Stone, M.D.; Executive Editor (Medico-Legal)—Paul D. Cantor, M.D., LL.B.; Associate Editors (Medical)—Alex B. Caldwell, Jr., Ph.D., John R. Dillon, M.D., Louise J. Gordy, M.D., Leonard Marmor, M.D., Lazarus A. Orkin, M.D., J. E. Schmidt, M.D., Le Moyne Snyder, M.D., Leon N. Sussman, M.D. Associate Editors (Legal)—Raoul Magana, LL.B., Richard Maxwell, LL.B. To present authoritative, definitive and exhaustive articles for the lawyer on timely medico-legal subjects. TRAUMA is published every two months by Matthew Bender & Company, Inc. Publication and Business Offices, 255 Orange St., Albany 1, New York.

This is a periodical publication directed primarily to the legal profession, but dealing with medico-legal subjects, and will be of interest to those doctors who find themselves in court in personal injury cases of all kinds. Volume 3, Number 3, of this publication is devoted primarily to a study of the skin and medico-legal problems in contact dermatitis. This includes the verbatim transcript of the examination of a medical expert in this field. If you are nervous about a prospective court appearance, this publication could be useful.

DOH

THE GENTLE LEGIONS. By Richard Carter. Garden City, N. Y.: Doubleday & Company, Inc., 1961. Price, $4.50.

On page 36, after two sections, this author gets to the first group he will consider, "The Controversial Red Cross." The next twenty pages bemoan the deaths from tuberculosis. Then come 175 pages of the polio story. The last section tells the story of many of the national health agencies with a particular disease or disease problem.

This book is primarily a treatise on polio. It could have been much more interesting if the paper cover suggestions and symbols had been followed: cancer, Red Cross, polio, tuberculosis and heart. Our anticipation of several "gentle legions" was dispelled by one of them trying to overlap other well-recognized "legions."

HYPERTENSION—RECENT ADVANCES. The Second Hahnemann Symposium on Hypertensive Disease. Edited by Albert N. Brest, M.D., Assistant Professor of Medicine and Head, Section of Hypertension and Renology, Hahnemann Medical College and Hospital, Philadelphia, Pa., with John H. Moyer, M.D., Professor and Chairman of the Department of Medicine, Hahnemann Medical College and Hospital, Philadelphia. Philadelphia: Lea & Febiger, 1961.

The complete text and material given at the second four-

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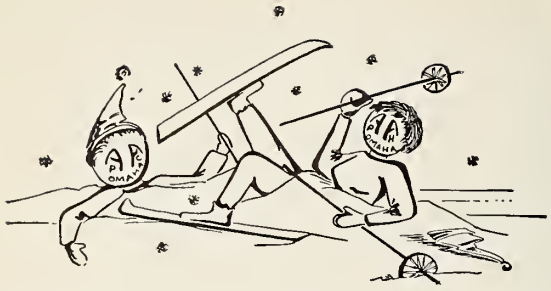
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day symposium, Recent Advances in Hypertension, is presented. The book contains 660 pages, gives the contributions of 156 different authors, and is divided into seven parts. The material meets the standard so long established by the Ciba Foundation.

BOOKS RECEIVED

A PHYSICIAN'S INTRODUCTION TO ELECTRONICS. A Laboratory Manual. By A. C. Morris Jr., Medical Division, Oak Ridge Institute of Nuclear Studies, Oak Ridge, Tennessee. New York, Oxford, London, Paris: Pergammon Press, 1961. Price, $2.50.

PROBLEMS OF PULMONARY CIRCULATION in honour of Prof. G. Liljestrand. Ciba Foundation Study Group No. 8. Editors for the Ciba Foundation: A. V. S. de Reuck, M.Sc., D.I.C., A.R.C.S. and Maeve O'Connor, B.A. 21 illustrations. Boston: Little, Brown and Company, 1961. Price, $2.50.

QUINONES IN ELECTRON TRANSPORT. Ciba Foundation Symposium. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P. and Cecilia M. O'Connor, B.Sc. 82 illus. Boston: Little, Brown and Company, 1961. Price, $11.00.

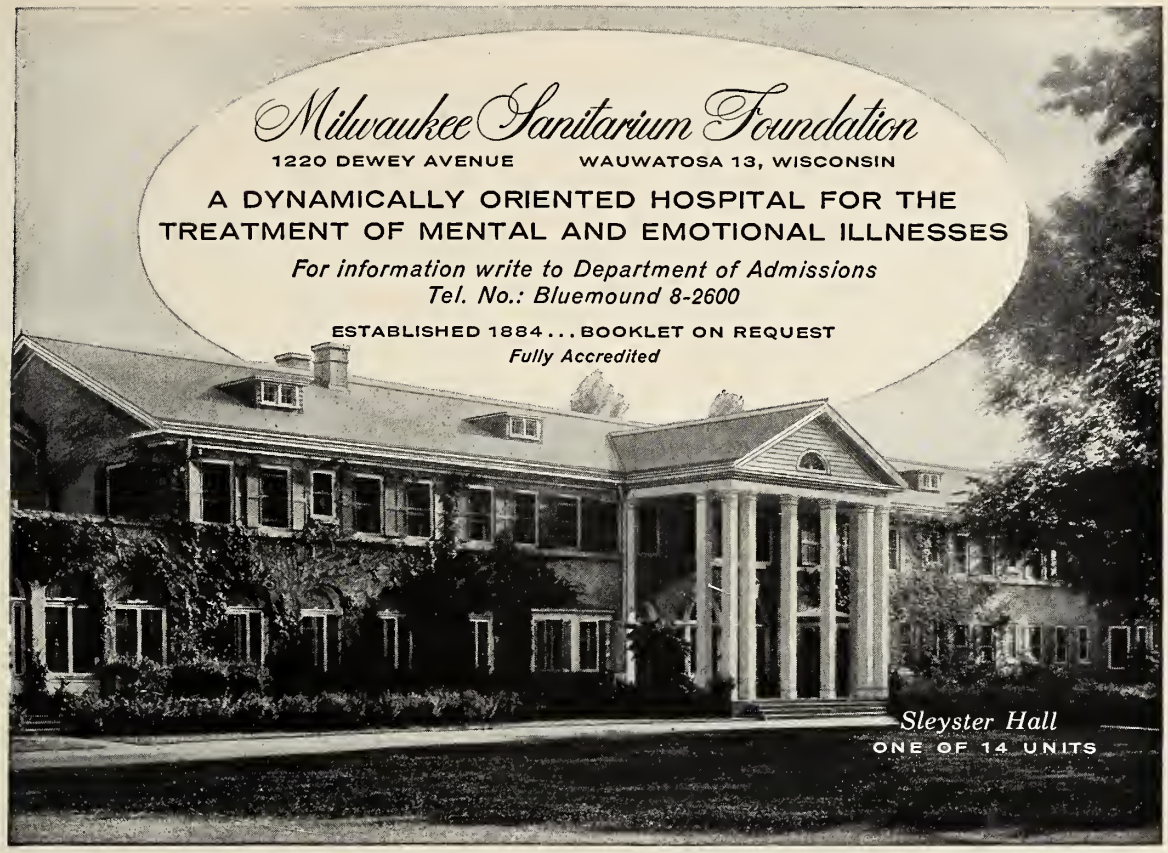
COUNSELING YOUR FRIENDS. Techniques in Psychotherapy for the Layman—With which he can help his disturbed friends and loved ones to better understand and resolve their problems. By Louis J. Cantoni, Ph.D. and Lucille Cantoni, M.S.W. New York: The William-Frederick Press, 1961. Price, $1.50.

ANTONY VAN LEEUWENHOEK AND HIS "LITTLE ANIMALS." A Collection of Writings By the Father of Protozoology and Bacteriology, Being Some Account of the Father of Protozoology and Bacteriology and His Multifarious Discoveries in These Disciplines. Collected, translated and edited, from his printed works, unpublished manuscripts, and contemporary records. By Clifford Dobell. New York: Dover Publications, Inc., 1961. Price, $2.25.

THE LIFE OF PASTEUR. By Rene Vallery-Radot. Translated from the French by Mrs. R. L. Devonshire. L'oeuvre de Pasteur est admirable; elle montre son genie, mais il faut dans son intimité pour connaître toute la bonté de son coeur.—Dr. Roux. New York: Dover Publications, Inc., 1961. Price, $2.00.

BIOLOGICAL ACTIVITY OF THE LEUCOCYTE. Ciba Foundation Study Group No. 10 in honour of Professor A. Vannotti. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P. and Maeve O'Connor, B.A. 17 illus. Boston: Little, Brown and Company, 1961.

PROGESTERONE AND THE DEFENCE MECHANISM OF PREGNANCY. Ciba Foundation Study Group No. 9 in honour of Dr. G. W. Corner. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., M.R.C.P. and Margarent P. Cameron, M.A. 22 illus. Boston: Little, Brown and Company, 1961.



HALOTHANE (FLUOTHANE). By C. Ronald Stephen, B.Sc., M.D., C. M. Professor of Anesthesia, Duke University School of Medicine, Durham, North Carolina, Consultant in Anesthesia, Veterans Administration Hospital, Durham, North Carolina, McCain Sanatorium, McCain, North Carolina, Fort Bragg Army Hospital, North Carolina, Portsmouth Naval Hospital, Virginia, and David M. Little, Jr., M.D., Department of Anesthesia, Hartford Hospital, Hartford, Connecticut. Baltimore: The Williams & Wilkins Company, 1961. Price $6.00.

PHYSICIANS' DESK REFERENCE TO PHARMACEUTICAL SPECIALTIES AND BIOLOGICALS. Sixteenth edition, in six sections. Copyright 1961 by Medical Economics, Inc. Oradell, N. J.: Medical Economics, Inc., 1961.

NATIONAL LIBRARY OF MEDICINE

The MSMS Library has received from the printer the first opies of Robert B. Austin's *Early American Medical Imprints, 668-1820*. The book seems to justify the fifteen years of reparation it required. It lists 2,106 works, indicates the oldings of some 35 libraries, and contains a chronological ndex. It is offered for sale by the Superintendent of Documents at $1 per copy.

It is a pleasure to note the first amendment to Austin. s item 1083, Austin lists the 1775 first edition of John nes' *Plain concise practical remarks on the treatment of ounds and fractures*, noting that NLM possesses this edition ly in photocopy. Now, through the generosity of Dr. D. es Jensen of New York City, the library has acquired one the seven known existing copies of this important work.

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April, 1962

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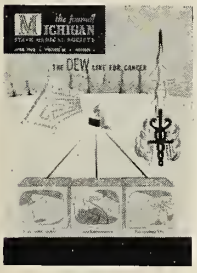
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THE COVER

The Cancer cover stresses the importance of early diagnosis to help save more lives. The scientific articles and editorial offer further information and challenge.

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WM. M. LeFEVRE, M.D.	11th	Muskegon	1963
JAMES R. DEHLIN, M.D.	12th	Gladstone	1963
D. ROEMER SMITH, M.D.	13th	Iron Mountain	1963
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DELEGATES TO A. M. A.

Delegates

	Term Expires
Wm. Bromme, M.D., Detroit	1962
R. L. Novy, M.D., Detroit	1962
G. W. Slagle, M.D., Battle Creek	1962
J. R. Heidenreich, M.D., Daggett	1963
W. A. Hyland, M.D., *Chairman*, Grand Rapids	1963
O. J. Johnson, M.D., Bay City	1963
L. R. Leader, M.D., Detroit	1963

Alternates

	Term Expires
C. I. Owen, M.D., Detroit	1962
R. E. Rice, M.D., Greenville	1962
D. N. Sweeny, Jr., M.D., Detroit	1962
G. B. Saltonstall, M.D., Charlevoix	1963
J. M. Wellman, M.D., Lansing	1963
Sidney Adler, M.D., Detroit	1963
B. M. Harris, M.D., Ypsilanti	1963

through all seven ages of man

VISTARIL®

effective anxiety control
with a wide margin of safety



in the "frantic forties"—For many patients in their "frantic forties," the pace never slackens—may even accelerate—while tensions multiply and physical resources dwindle. Out of this seedbed of stresses and anxieties grow much of the alcoholism, psychosomatic illness, and sympathetic overactivity of the middle years.

In each of these areas, VISTARIL is often effective alone or as an adjunct to other therapy. For example, in his series of 67 patients, King[1] found that 62 showed remission of anxiety, tension, nervousness and insomnia, as well as alleviation of symptoms associated with various functional and psychophysiological disturbances. He concludes that VISTARIL is well suited for use in the practice of internal medicine.

In the emergent situation, VISTARIL, administered parenterally, is a valuable aid to the physician in managing patients who escape psychic conflict via alcohol. According to Weiner and Bockman,[2] who obtained beneficial results in 81% of 175 patients studied, hydroxyzine (VISTARIL) may well be considered a tranquilizer of choice in the management of the acutely agitated alcoholic.

1. King, J. C.: Int. Rec. Med. 172:669, 1959. 2. Weiner, L. J., and Bockman, A. A.: Sci. Exhibit, A.M.A., Ann. Meet., New York City, June 26-30, 1961.

VISTARIL® CAPSULES AND ORAL SUSPENSION
HYDROXYZINE PAMOATE

VISTARIL® PARENTERAL SOLUTION
HYDROXYZINE HYDROCHLORIDE

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IN BRIEF VISTARIL®

VISTARIL, hydroxyzine pamoate (oral) and hydroxyzine hydrochloride (parenteral solution), is a calming agent unrelated chemically to phenothiazine, reserpine, and meprobamate.

VISTARIL acts rapidly in the symptomatic treatment of a variety of neuroses and other emotional disturbances manifested by anxiety, apprehension, or fear—whether occurring alone or complicating a physical illness. The versatility of VISTARIL in clinical indications is matched by wide patient range and a complete complement of dosage forms. The calmative effect of VISTARIL does not usually impair discrimination. No toxicity has been reported with the use of VISTARIL at the recommended dosage, and it has a remarkable record of freedom from adverse reactions.

INDICATIONS: VISTARIL is effective in premenstrual tension, the menopausal syndrome, tension headaches, alcoholic agitation, dentistry, and as an adjunct to psychotherapy. It is recommended for the management of anxiety associated with organic disturbances, such as digestive disorders, asthma, and dermatoses. Pediatric behavior problems and the emotional illnesses of senility are also effectively treated with VISTARIL.

ADMINISTRATION AND DOSAGE: Dosage varies with the state and response of each patient, rather than with weight, and should be individualized for optimum results. The usual adult oral dose ranges from 25 mg. t.i.d. to 100 mg. q.i.d. Usual children's oral dose: under 6 years, 50 mg. daily in divided doses; over 6 years, 50-100 mg. daily in divided doses.

Parenteral dosage for adult psychiatric and emotional emergencies, including acute alcoholism: I.M.—50-100 mg. Stat., and q.4-6h., p.r.n. I.V.—50 mg. Stat., maintain with 25-50 mg. I.V. q.4-6h., p.r.n.

SIDE EFFECTS: Drowsiness may occur in some patients; if so, it is usually transitory, disappearing within a few days of continued therapy or upon reduction of dosage. Dryness of mouth may be encountered at higher doses.

PRECAUTIONS: Drowsiness may occur in some patients. The potentiating action of hydroxyzine should be taken into account when the drug is used in conjunction with central nervous system depressants. Do not exceed 1 cc. per minute I.V. Do not give over 100 mg. per dose I.V. Parenteral therapy is usually for 24-48 hours, except when, in the judgment of the physician, longer-term therapy by this route is desirable.

SUPPLIED: VISTARIL *Parenteral Solution* (hydroxyzine hydrochloride)—10 cc. vials, 25 mg. per cc. and 50 mg. per cc.; 2 cc. ampules, 50 mg. per cc. VISTARIL *Capsules* (hydroxyzine pamoate)—25, 50, and 100 mg. VISTARIL *Oral Suspension* (hydroxyzine pamoate)—25 mg. per 5 cc. teaspoonful.

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New York 17, New York

Political Care for Aged Voters

Chicago Daily News, March 1, 1962.

It is unarguable that the average age of the nation's population is rising; 9.2 per cent are now 65 or over, compared with 4.7 per cent in 1920. As age rises the need for medical care increases. The fertile political field created by these facts is attested by the attention given the subject in Washington, now capped by a new and urgent appeal from President Kennedy for a health program to be financed under the Social Security system.

It does not follow that because a man has reached 65 he is unable to pay his doctor's bills. Not everyone, even those under Social Security, retires at 65. The clamor is mainly on behalf of the millions of low-income people who cannot afford private health insurance and have no savings to tide them over illness.

But why should attaining the age of 65, rather than financial need, determine who shall have his medical bills paid by the government? The Kerr-Mills program now in effect provides federal aid to match state funds to provide health care for anybody who cannot pay.

The administration plan requires that patients pay the first $90 of their hospital bills. This is presumably designed to keep the hospitals from being swamped. It seems likely to work a hardship on the indigent. No doubt in practice local welfare organizations would pay this $90 in many cases, but this would introduce the means test that the Kennedy plan is determined to avoid.

In advancing this compulsory scheme, the President leans heavily upon the fiction that the Social Security system is a form of insurance. This deception appears in the description of the plan as a means by which a taxpayer can spread out over his lifetime the burden of paying for his medical care after 65.

Social Security taxes are merely another bite out of the payroll, differing no whit from any other federal tax. Congress can raise, lower or cancel the promised benefits as it sees fit. Anything that could properly be called insurance is accompanied by a firm contract.

Mr. Kennedy's message recommended several other new ventures into the medical field, including a nationwide program of providing vaccines for the immunization of everybody against polio, whooping cough, tetanus and diphtheria.

For most large cities, this is merely an offer to help pay for what is now being done. Possibly the offer would stimulate vaccination programs in additional areas, but the cost seems so small as hardly to require federal subsidy.

Neither can we understand why federal loans are required to build centers for group medical practice. This business is profitable for the practitioners, as well as beneficial to the community. Have we reached the point that even prosperous people are considered unable to take a few steps to help themselves?

Say you saw it in the Journal of the Michigan State Medical Society

Can we measure the patient's comfort?

The physician can measure the basal metabolic rate by means of oxygen consumption. But he has no instrument—no objective test—for measuring comfort.

For this, he must depend upon his own powers of observation and the patient's own description of how he feels.

Because these are, admittedly, subjective criteria, the validity of results hinges entirely on the experience and objectivity of the investigators involved.

Such well-qualified clinicians have reported that a new corticosteroid developed in the research laboratories of Upjohn actually raises the level of relief obtainable with this type of therapy.

This difference cannot be "proved." It must be seen. And the only practical way for you to do this is to evaluate this new drug critically in your own practice. Please do, at your first opportunity. We are confident that you will be glad you did.

The new corticosteroid from Upjohn research

Alphadrol*

Each tablet contains Alphadrol (fluprednisolone) 0.75 mg. or 1.5 mg.
Supplied in bottles of 25 and 100.

The anti-inflammatory activity of Alphadrol is comparable to the best effects obtained in current practice. Results obtained with Alphadrol have been such as to warrant classifying it among the most efficient steroids now available.

More than twice as potent as prednisolone, Alphadrol exhibits no new or bizarre side effects. Salt retention, edema or hypertension, potassium loss, anorexia, muscle weakness or muscle wasting, excessive appetite, abdominal cramping, or increased abdominal girth have not been a problem.

Indications and effects
The benefits of Alphadrol (anti-inflammatory, antiallergic, antirheumatic, antileukemic, antihemolytic) are indicated in acute rheumatic carditis, rheumatoid arthritis, asthma, hay fever and allergic disorders, dermatoses, blood dyscrasias, and ocular inflammatory disease involving the posterior segment.

Precautions and contraindications
Patients on Alphadrol will usually experience dramatic relief without developing such possible steroid side effects as gastrointestinal intolerance, weight gain or weight loss, edema, hypertension, acne or emotional imbalance.

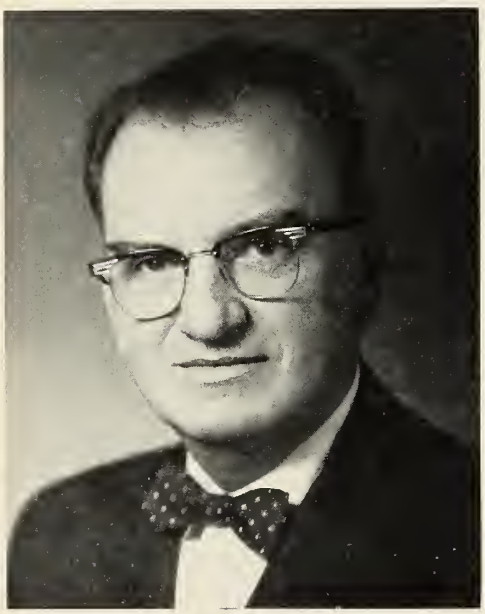
As in all corticotherapy, however, there are certain precautions to be observed. The presence of diabetes, osteoporosis, chronic psychotic reactions, predisposition to thrombophlebitis, hypertension, congestive heart failure, renal insufficiency, or active tuberculosis necessitates careful control in the use of steroids. Like all corticosteroids, Alphadrol is contraindicated in patients with arrested tuberculosis, peptic ulcer, acute psychoses, Cushing's syndrome, herpes simplex keratitis, vaccinia, or varicella.

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President's Page

REMEMBER THE PATIENT



President
Michigan State Medical Society

It is often wiser to use a shot gun when we fire at a not-too-clearly-defined and evasive target.

We in Medicine are frequently doing just that in our public relations. Let me explain. . . .

Medicine faces many serious challenges today. We are concerned about effectively reaching the congressmen, the legislators, the media people, teachers, the students, et al.

So perhaps we have grabbed up a shot gun. And it would be easily understood if we have done this. Public relations generally applied are designed to cover a broad area like the pellets in a shot gun charge. The entire load is not expected to hit each objective.

Let us think a minute, however, about a very important target . . . where deliberate, careful aim is possible and desirable. This one we cannot afford to miss. A rifle firing one bullet is better here.

That target is the satisfaction of each single patient we are seeing at some precise moment; the man we are examining in our office, the woman we are delivering at the hospital, that youngster we are seeing on the house call in the country.

We cannot forget this person. He has the most potentially powerful voice of all.

Satisfied patients, in the final count, can mean a satisfactory medical practice. Disgruntled patients can lead us to government domination of our profession faster than any social planners.

Let us continue to strive to convince each patient that you care about his health, his happiness and also about his socio-economic problems.

Let's trade our shot gun methods for the technique of a skilled rifleman as we perform our daily work. We are at our best in public relations when we score high with satisfied patients.



Michigan Doctors Write Congressmen

Doctor, have you written this week to your Congressman about HR-4222?

Has your wife written?

Did your medical assistant write, also?

And how about your neighbors and friends?

* * *

An all-out letter-writing campaign is a "must" as MSMS members actively campaign against the possible passage of the King-Anderson Bill (HR-4222) in Congress.

A six-week concentrated effort is being aggressively carried out in Michigan in harmony with other medical societies across the nation. Many county medical societies already have adopted resolutions stating their position—many have speakers' bureaus in operation—many are running ads in their newspapers—many others are using radio and television time to help tell the story—et cetera.

But, the letter-writing efforts probably will be the most effective.

In your letters, you are able to tell your Senators and Representatives at Washington that you personally oppose HR-4222 because there is no demonstrated need for this legislation. Or that the bill would increase the Social Security tax. Or that the total cost would be staggering. Or that most of our aged are presently covered by voluntary pre-payment health protection, or by present governmental programs. Or that it would lead to a system of socialized medicine for everyone.

You know which argument makes the most sense to you, individually.

Leaders of MSMS point out that the Congressmen do want to hear from you and their other constituents. And you can be sure that some of the opponents have letter-writing campaigns in full swing. The opposition will never stop—and they need to win only once to have their foot in the door.

Be sure when you write that you use the correct address when writing your Congressman. Letters to the Representatives should be addressed to the House Office Building, Washington 25, D.C.; and letters to the Senators to the Senate Office Building, Washington 25, D.C.

On Malpractice Suits

By J. H. Abronheim, M.D., *President*,
Jackson County Medical Society

(The following message, presented by Doctor Abronheim as his Inaugural Address, was recommended to all Journal readers by the Editor.)

"A year ago, my predecessor in the office of president of this society, Dr. Cecil Corley, very ably discussed with us some of the facets of the practice of medicine and, as you may remember, he made particular reference to our relationship with the public. I wish to discuss with you a negative facet of this relationship, one which is very real, very destructive and extremely dangerous to the individual physician, malpractice suits.

"It has become very obvious in recent years that the public is becoming increasingly more malpractice suit conscious. What at one time had been only an occasional occurrence, has developed into one of the most ruthless, most profitable rackets with the medical profession being the victim. We know very well that the great majority of malpractice suits is instituted not to recover compensation for damages suffered but to make an easy dollar from a convenient target, namely, from you and me. Things are being made very simple for the public; one can always find a lawyer who is willing to accept such case regardless as to how hopeless it may appear on the surface, and one can always find a gullible jury who will believe the side which happens to be more vociferous and more dramatic.

"These suits are assuming ridiculous proportions. Astronomical sums are awarded to plaintiffs for minimal impairment of their health, often in cases where there is not a speck of relationship between the alleged negligence and the impairment. It is amazing to see that normally decent and honest citizens resort to such sources of income, not realizing or not wanting to realize that whatever money they recover is tainted and dirty. 'What do you care?' they ask the doctor. 'You are insured; it doesn't cost you anything.'

"What they disregard is the mental anguish to which the doctor is subjected, not to mention the unfavorable publicity suffered by a competent and ethical physician and the monetary loss to the insurance company suffered on the basis of distorted facts. Often the doctor tries to settle even the most ridiculous case out of court in order to avoid the inevitable publicity; unfortunately, a shrewd lawyer takes advantage of this and encourages the patient to sue where actually there is no basis for litigation. The threat of a possible malpractice suit does not help the quality of medical practice.

"Many physicians hesitate to institute certain forms of treatment, usually considered appropriate, in fear that an unfavorable outcome of the case may be used against them. On the other hand, they will perform procedures, normally considered unnecessary, such as unusual laboratory tests, or x-ray examinations, just to be protected in case of a lawsuit against them.

"Obviously, there must be something wrong with our system of jurisprudence as long as such overt and far reaching miscarriages of justice can happen. Where is the fault, I ask myself? Is it the fault of the court and court proceedings? Is it the fault of the judges, the lawyers, the juries? Is it perhaps our own fault? With your permission, I will take it upon myself to probe into this problem while I am the president of this society.

"Perhaps, with the help of some of our good friends of the law profession, we might find a way, by campaigning or actual legislation, by which justice may be meted out to all. No one should be deprived of the ancient privilege of suing in the courts, nor should any one be denied compensation where compensation is due, but neither should the physician be made the victim of greed, and his competence and honesty be publicly assailed with untruths and half-truths. If we should succeed in improving this deplorable situation in our own state, we may point the way to our colleagues all over the nation."

Michigan Society of Neurology and Psychiatry Plans Weekend in May

The Michigan Society of Neurology and Psychiatry and the Michigan District Branch of The American Psychiatric Association will meet at a Past Presidents' and Inaugural Weekend in Detroit, May 19-20.

On Saturday evening, May 19, the Veterans Memorial Building will be the site for a gala cocktail-reception and dinner dance. The feature of the evening will be the presentation by President Peter A. Martin, M.D., of certificates in recognition of their contributions to all past presidents and the inauguration of the 1962-63 slate of officers. Dr. Martin at this time will transfer the reins of the Society to President-Elect Jacques Gottleib, M.D.

The other feature of the weekend will be an outstanding scientific program on Sunday morning, May 20, at the Statler Hotel. Leo H. Bartemeier, M.D., will present an academic lecture on "Psychological Space and Its Dimensions." Dr. Bartemeier, a former Michigan physician, is director of The Seton Psychiatric Institute in Baltimore. The second academic lecture will be given by Rudolph Loewenstein, M.D., on "Recent Developments in Ego Psychology." Dr. Loewenstein is a practicing psychoanalyst in New York city and a training analyst in the New York Psychoanalytic Institute.

All members of the Michigan State Medical Society are invited.

HIGHLIGHTS of The Council

Meeting of March 2, 1962

Sixty-one items were presented to The Council at its Detroit meeting which followed adjournment of the 1962 Michigan Clinical Institute. Chief in importance were:

- Financial Report as presented by W. W. Babcock, M.D., Chairman of the Finance Committee, and bills payable for the month, were studied and approved.
- Progress Report on hearings of Governor's Commission on Prepaid Hospital and Medical Care Plans was presented by H. F. Falls, M.D., Chairman of the MSMS Committee on Medical Socio-Economics who briefly reviewed the MSMS testimony and that of other groups. The Governor's Commission will begin drafting its report in two weeks. Upon recommendation of Chairman Falls, The Council authorized an informal conference with parties concerned in health care, to be planned under the direction of a Chairman appointed by The Council.

  Committee Reports.

  (a) Disaster Medical Care Committee, at its January 17 meeting, reviewed plans for proposed 1962 Regional Health Services in Emergencies Conference, Lansing, April 25-26; discussed training manual for civil defense emergency hospital, medical self-help training course, and 1961 House of Delegates Resolution 34 re structure of civil defense organization in Michigan.

  (b) Committee on Professional Insurance Plans, meeting January 18, reviewed committee consideration of a possible single group life insurance plan for the Michigan State Medical Society and the Wayne County Medical Society. At its February 1 meeting, the Committee on Professional Insurance Plans met with representatives of the Michigan Health Insurance Council to review 1961 House of Delegates actions of interest, especially Resolution 39 urging the insurance industry to promote paid-up-at-65 health insurance.

  (c) Mental Health Committee, meeting January 25, reviewed State Mental Health Department's public meetings and proposed budget, motor vehicle license suspension, report on the Governor's Conference on Mental Health and Education, proposed Interstate Compact on Mental Health legislation, alcoholism and narcotics addiction, and the planned 1962 AMA Conference on Psychiatry.

  (d) Medical Care Insurance Committee, on February 14, reviewed composition of Michigan Medical Service board and MD participation in Blue Shield; possible scheduling of conferences with county society leaders also was discussed.

  (e) Michigan Cancer Coordinating Committee, at its January 11 meeting, received reports on the Michigan Consumers Protection Conference held in Detroit, November 2 and on the National Quackery Congress held in Washington, D.C., October 6-7. It also made plans for future activities by MCCC, including Cancer Quackery legislation and exhibit.

- Secretary D. Bruce Wiley, M.D., presented a question of eligibility for retired membership in MSMS, report on AMA survey of Michigan Aid to the Aged Program in Wayne County, and reviewed correspondence concerning a matter of ethics over which the State Society has no jurisdiction.
- Headquarters Organization. The Council Chairman was authorized to appoint five members of The Council to an Ad Hoc Committee to Study MSMS Headquarters Organization.
- Each Councilor was invited to present matters of interest regarding the profession in his Councilor District. Subjects discussed were: Appeal to MSMS Ethics Committee, Relationship between County Medical Society and county health director, establishment of a Pre-Med Club; and the need for strong replies to charges that the MAA program in Michigan has failed.
- Council Chairman O. B. McGillicuddy, M.D., presented the following matters:

  1. Statement re need for more medical graduates was presented, thoroughly considered, and approved in general with request that it be redrafted incorporating various suggestions made at this Council meeting, for submission at the April 18 meeting of The Council.
  2. Discussed was recognition, by state agencies, of doctors certified by the National Board. The Council "requests that the Michigan State Board of Registration in Medicine and the Michigan Board of Examiners in the Basic Sciences change their respective administrative rules to give recognition to those Doctors of Medicine certified by the National Board of Medical Examiners for licensure to practice medicine in the State of Michigan."

3. Chairman McGillicuddy announced the appointment of K. J. Feeney, M.D., of Lansing and H. A. Towsley, M.D., of Ann Arbor as Consultants to the Michigan United Fund;

   The Chairman was authorized to appoint two Wayne County physicians as representatives to the Board of the Multiple Sclerosis Society:

   Announced was the nomination of E. T. Palm, M.D., of Crystal Falls and E. R. Elzinga, M.D., of Marquette to Michigan Hospital Service as nominees to fill the vacancy on the M.H.S. Board caused by the resignation of D. R. Smith, M.D., of Iron Mountain;

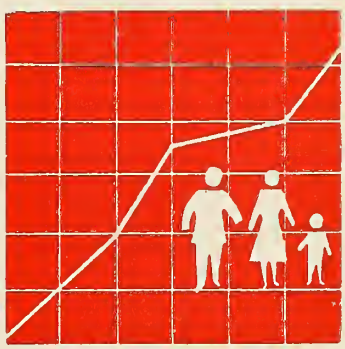
   Chairman McGillicuddy announced that the Governor had appointed Walter H. Obenauf, M.D., of Pontiac to the State Board of Nursing Advisory Council; and that J. H. Fyvie, M.D., of Manistique was authorized to attend the AMA Regional Rural Health Conference to be held in Des Moines, Iowa, May 18-19.
4. Chairman McGillicuddy reported on the 1962 Michigan Clinical Institute, just completed. The Council placed on its minutes a vote of thanks to all who aided in the planning and execution of the Institute.

- C. I. Owen, M.D., as Michigan Chairman for the American Medical Association Education and Research Foundation, reported contributions from this State of $1,970 in January.
- Speaker J. J. Lightbody, M.D., reported that as of February 20 a total of 5,480 questionnaires had been returned by MSMS members indicating their attitude on Social Security for M.D.s. Complete report will be presented to The Council on April 18.
- Legal Counsel Lester P. Dodd presented opinions (a) that a local hospital (not organized under the County Hospital Act) may in its Bylaws limit its practice privileges; (b) that an Indiana physician, regularly licensed in Indiana, may properly and lawfully engage in *consultation* with physicians in this state, but he may not lawfully engage directly in medical practice in Michigan; (c) on many facets of "privileged communications," which opinion is to be published in THE JOURNAL as it collects and answers many questions frequently asked.
- Executive Director Wm. J. Burns reported on staff coverage of seven committee meetings held since February 2, on other staff activity since the last meeting of The Council, on the successful reception for members of the Michigan Health Officers Association held in the MSMS building February 7, on numerous mailings in recent weeks; and on fire liability at conventions of MSMS and of Michigan Clinical Institute; The Council authorized necessary fire insurance protection for all such conventions.
- Public Relations Counsel H. W. Brenneman's report included resume of study made by Legislative Committee on Michigan Crippled Children's Commission (which called for increased fee schedules to MD's); on issuance of periodic legislative reports; on Hospital Licensing Bill (H.B. 100); on News Coverage at the Michigan Clinical Institute; on recent speaking engagements; on legislative contacts; on support from various organizations opposing HR 4222; and on the recent Michigan Association of the Profession Congress.

New MSMS Members

Name	*Type of Membership*	*County*	*Specialty*
Donald J. Breen, M.D. K. I. Sawyer AFB Gwinn, Michigan	Military	Marquette	GP
Earl S. Gerard, M.D. 3410 Runnymede Drive Kalamazoo, Michigan	Associate	Kalamazoo	
David W. Granger, Jr., M.D. K. I. Sawyer AFB Gwinn, Michigan	Military	Marquette	Surgery
Dorsey Wm. Hurst, M.D. K. I. Sawyer AFB Gwinn, Michigan	Military	Marquette	Internal Medicine
Robert E. Jardinico, M.D. 1710 Orchard Street Ann Arbor, Michigan	Associate	Washtenaw	Ophthalmology
A. Richard Kendall, M.D. 980 Sherwood Road Ann Arbor, Michigan	Associate	Washtenaw	Urology
Harold C. Rankin, M.D. K. I. Sawyer AFB Gwinn, Michigan	Military	Marquette	GP
Paul C. Schwallie, M.D. 824 Sunrise Circle Kalamazoo, Michigan	Associate	Kalamazoo	
Bruce H. Stewart, M.D. University Medical Center Ann Arbor, Michigan	Active	Washtenaw	Urology
Marianne Whowell, M.D. 512 S. Fourth Avenue Ann Arbor, Michigan	Active	Washtenaw	Anesthesia
Joel P. Zrull, M.D. 1211 Creal Crescent Ann Arbor, Michigan	Associate	Washtenaw	Psychiatry

Discusses Research On Hospital Utilization



The rising cost of health care cannot be blamed on elderly patients alone, nor on the fact that our entire population is aging.

Vergil N. Slee, M.D., director of the Commission on Professional and Hospital Activities (CPHA) of Ann Arbor, told the Joint Commission for the Promotion of Voluntary Non-Profit Prepayment Plans, at its recent First National Conference on Utilization, that CPHA has made studies on hospital utilization which, even after they had been adjusted for age, still registered significant increases in length of hospital stays.

Dr. Slee also dealt a blow to the claim that the only problem is one of over-utilization. "There is," he said, "evidence of serious under-utilization."

To support this point he cited a study made at CPHA of 15 hospitals discharging 1,157 acute coronaries in the first six months of 1961. The average length of stay for these patients was 23.2 days, which was consistent with what experts say it should be.

"Yet," said Dr. Slee, "39 per cent of the patients were discharged sooner than the average, sooner in fact than what heart specialists maintain is good practice."

The director of the Commission, a nonprofit, research organization studying an average of 9,000 patient records daily from 231 hospitals in the U.S., Puerto Rico and Canada, said his organization has accumulated a file of over six million hospitalizations.

He said that the Commission's research indicates four important conclusions: (1) That a simple, inexpensive system has been developed to study utilization; (2) That methods of detecting understays as well as overstays exist; (3) That over-utilization well beneath the 30-day rule of thumb can be found; (4) That a good start has been made in the direction of measuring utilization meaningfully.

Points to Cost of Kennedy Plan

The president of the Health Insurance Association of America contends the Administration's proposal for medical care to the aged should not be enacted because it would set up a massive and costly program to meet a relatively small need.

"Our goal should be to provide adequate programs to meet the real needs of the less fortunate members of our society," says H. Lewis Rietz. "Present programs afford this potential. The King-Anderson bill does not because it provides benefits to a large group with no distinction made between the needy, the near-needy, and the rest of our society."

The insurance spokesman said the needs of the indigent and the medically indigent are being met through existing programs, such as the Kerr-Mills program, Old Age Assistance, and efforts on the state and local level. He added: "All others of our senior citizens can provide for their health care needs through the voluntary system. Substantially more than half of these aged have already done so, and the remainder have a wide variety of plans and programs from which to pick."

Easier to Pay Medical Bills Now

Statistics from the U. S. Bureau of Labor reveal that:

A factory employee today works only 51 per cent as long to pay for medical care (less hospital care) as he did in 1939;

He now works 55 per cent of the hours to pay for physicians' services;

He works only 49 per cent of the time to pay for surgeons' fees;

He works only 56 per cent as long to pay for dentists' fees;

He works only 42 per cent as long to pay for optometric examinations;

He works only 43 per cent as long to pay for prescriptions and drugs.

Only one part of medical care—hospital rates—required more working time to cover the increased cost. The factory worker in 1959 put in 122 per cent of the time worked in 1939 to purchase the same amount of hospital services.

AMA-Blue Shield Plan for Senior Citizens Follows Pace Set By MMS in 1959

The American Medical Association and the National Association of Blue Shield Plans hit some sort of jackpot with their joint announcement of a nationwide Blue Shield medical care prepayment program for persons of 65 years or more.

The uniformly favorable newspaper response to the original announcement—manifested both in the prominence accorded the news story and in editorial and cartoon reactions—undoubtedly reflected a widespread popular attitude expressed by an editorial in the *Saturday Evening Post* (written before the event) which said, "We certainly would be with them (the doctors) if they came up with a counterproposal, acceptable to doctors, that would do the job the President envisages."

That the AMA-Blue Shield announcement caught the Administration badly off balance was shown by the weak, irrelevant comment of HEW Secretary Ribicoff, three days later, that the doctor's program should be ignored because it "would do nothing whatever to meet the staggering problem of high cost of hospital care."

Mr. Ribicoff's dismissal of the AMA-Blue Shield proposal led the *Wall Street Journal*—which has not been notably partisan to AMA in the past—two comment, editorially, that "since the Administration is much concerned with medical care for the aged these days, you might suppose it would applaud the increasing availability of this and other types of health insurance. . . . But no; the Administration is demonstrating it has little if any tolerance for private efforts. . . . This attitude inevitably raises the question whether Washington's chief interest is in the aged or merely in furthering extending Government control over everyone."

In its formal resolution endorsing this program, the AMA Board of Trustees pointed out that it "conforms with the spirit" of the policy adopted by the AMA House of Delegates in December 1958, which recommended that physicians "expedite the development of an effective voluntary health insurance or prepayment program for the group over 65 with modest resources or low family income," and also recommended that "physicians agree to accept a level of compensation for medical services rendered to this group which will permit the development of such insurance and prepayment plans at a reduced premium rate."

The AMA Board's statement recommends "that the constituent medical associations take such action as is necessary to cooperate with the proposed Blue Shield plan, and applauds this effort by the Blue Shield."

Editor's Note:

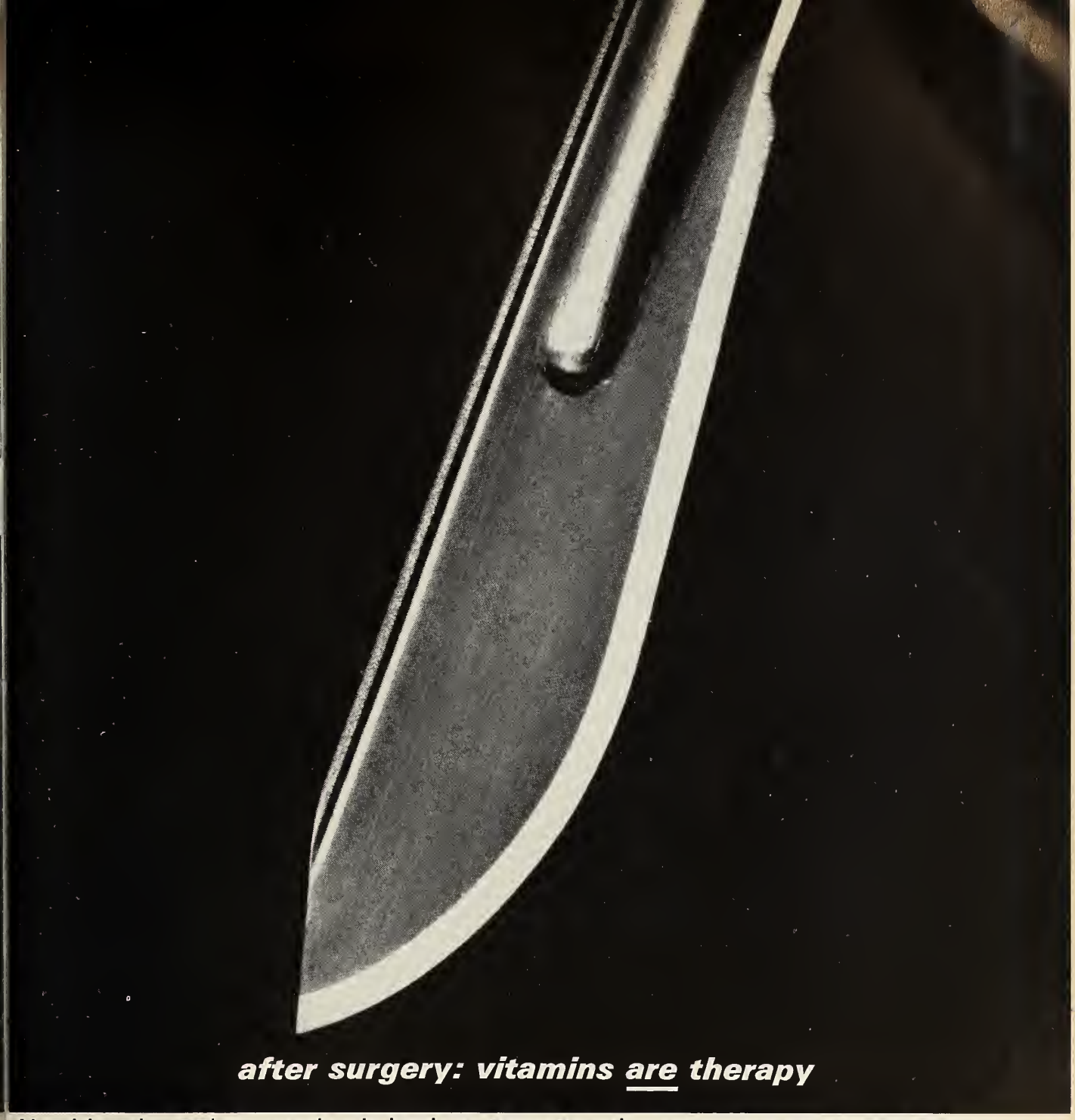
The Michigan Medical Service Senior Citizens' Plan had been developed following the AMA House of Delegates meeting in Minneapolis in 1958. It was offered to the senior population of the state in the fall of 1959. It has been on the market ever since, advertised and publicized with three general open subscription dates when the age 65 and over persons could subscribe.

Michigan Senior Citizen Program had approximately 17,000 subscribers at the end of 1961. The Michigan Medical Service rate for this contract is $3.24 per person per month. It is a service contract when the annual income is less than $2,500 from all sources of the member of the household who is the principal contributor of support to the household. This Plan is comparable to that being suggested now by the National Association of Blue Shield Plans in that it provides greater benefits in some areas, and less benefits in others.

Michigan Blue Cross has a specially designed Senior Citizen contract with a rate of $5.23 per person per month.

Michigan has retired people, age 65 and over, in its regular group coverage and its regular group conversion coverage and in the non-group area where the person enrolled prior to age 65 is permitted to continue the contract after age 65. Enrollment in these three categories is approximately 223,000 persons.

(Turn to page 416)



after surgery: vitamins are therapy

Nutritional supplementation is basic to postoperative care. Therapeutic allowances of B and C vitamins help meet increased metabolic requirements and compensate for stress depletion. STRESSCAPS can set the patient on a more favorable course and contribute to full recovery. Packaged in decorative "reminder" jars of 30 and 100.

Each capsule contains:	
Vitamin B_1 (Thiamine Mononitrate)	10 mg.
Vitamin B_2 (Riboflavin)	10 mg.
Niacinamide	100 mg.
Vitamin C (Ascorbic Acid)	300 mg.
Vitamin B_6 (Pyridoxine HCl)	2 mg.
Vitamin B_{12} Crystalline	4 mcgm.
Calcium Pantothenate	20 mg.

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A family of obesity-control aids combining appetite control and nutritional supplementation. Four dosage forms from which to choose; each containing dextroamphetamine with a barbiturate to prevent excessive central stimulation, and vitamins to supplement the restricted diet:

Vio-Dex, introduced in 1950, is now a standard in obesity-control therapy.

Vio-Dex Timelets offer sustained release of dextroamphetamine. One Timelet in the morning lasts all day. Available in 10 mg. and 15 mg. dosage forms.

Vio-Dexose chewable tablets, with dextrose and dextroamphetamine, provide a dual attack on hunger and allow dosage flexibility.

Contraindications: Prepsychotic anxiety and agitation, and hypersensitivity to sympathomimetic agents. Use with caution in patients with cardiovascular disease.

Side Effects: Seldom encountered, include nervousness and insomnia. (Rx only)

Formulation:	Vio-Dex Red & Yellow Capsule†	Vio-Dex Timelets††	Vio-Dexose Citrus Flavored Tablet†‡
Dextro-Amphetamine Phosphate	5.0 mg.	10 mg.*, 15 mg.**	2.5 mg.
Phenobarbital	16 mg.	32 mg.	....
Mephobarbital	....	....	8.0 mg.
Dextrose (9.4 cal.)	....	....	2.5 mg.
Vitamin A	5000 I.U.	5000 I.U.	1000 I.U.
Vitamin D	1200 I.U.	1200 I.U.	100 I.U.
Vitamin B-1	3 mg.	3 mg.	0.5 mg.
Vitamin B-2	3 mg.	3 mg.	0.5 mg.
Vitamin B-6	1 mg.	1 mg.	0.15 mg.
Vitamin C	100 mg.	100 mg.	15 mg.
Vitamin E	1 I.U.	1 I.U.	....
Niacinamide	20 mg.	20 mg.	3 mg.
Calcium Pantothenate	2 mg.	2 mg.	0.3 mg.

*Orange, coated tablets **Brown, coated tablets ††1 a day
†1 before each meal ††1 or 2 before or between meals

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More Counties Appoint Socio-Economic Committees

Appointments of Medical Socio-Economic Committees are announced by seven more of the county medical societies. The first news about such new committees was reported in the March number of the MSMS JOURNAL.

Each component county medical society and each of the specialty medical groups is urged to appoint a committee. Such action, along with the appointment of a MSMS Medical Socio-Economic Committee, was approved by the 1961 House of Delegates. Additional committees will be reported as they are received by the MSMS office:

Alpena-Alcona-Presque Isle County Medical Society: E. S. Parmenter, M.D., Chairman, Alpena; S. L. Cohn, M.D., Alpena; W. F. Jackson, M.D., Rogers City.

Bay-Arenac-Iosco County Medical Society: K. A. Alcorn, M.D., Chairman, Bay City; G. L. Hagelshaw, M.D., Bay City; Mana Kessler, M.D., Bay City; L. B. McSherry, Jr., M.D., Bay City; D. J. Mosier, M.D., Bay City.

Kent County Medical Society: Jack Hoogerhyde, M.D., Chairman, Grand Rapids; J. Russell Brink, M.D., Grand Rapids; Arthur K. Hamp, M.D., Grand Rapids.

Livingston County Medical Society: T. A. Barton, M.D., Chairman, Howell; Stanley Hoffman, M.D., Howell; R. F. Hauer, M.D., Fowlerville.

Marquette-Alger County Medical Society: T. B. Bolitho, M.D., Chairman, Marquette; W. S. Dailey, M.D., Munising; A. S. Narotzky, M.D., Ishpeming; Louis Rosenbaum, M.D., Ishpeming; Rhea Preston, M.D., Sawyer AFB; Leonard Carefoot, M.D., Marquette; J. W. Lyons, M.D., Marquette.

St. Clair County Medical Society: D. A. Koch, M.D., Chairman, Port Huron.

Wayne County Medical Society: E. J. Tallant, M.D., Chairman, Detroit; E. L. Freitas, M.D., Detroit; H. M. Fuller, M.D., Detroit; R. J. Kokowicz, M.D., Detroit; S. J. Lutz, M.D., Detroit; R. E. Wunsch, M.D., Grosse Pointe.

Maternal Mortality in Recent Years

Truly remarkable progress has been made in reducing the mortality associated with pregnancy and childbirth. Provisional figures indicate that there were only 1,360 maternal deaths in the United States during 1960, while births during the year totaled about 4¼ million. This is equivalent to a maternal mortality rate of 3.2 per 10,000 live births, or approximately one death in every 3,100 births.

Within the past decade alone, maternal mortality decreased nearly three fifths. Among white women the rate fell from 6.1 per 10,000 live births in 1950 to 2.6 in 1959, a reduction of 57 per cent; among the nonwhite the corresponding decrease was from 22.2 to 10.2 per 10,000 live births, or 54 per cent.

Say you saw it in the Journal of the Michigan State Medical Society

A Uterine Cytology Program In Southeastern Michigan

Isidore Selzer, M.D.
Detroit, Michigan



THE VALUE of exfoliative cytology in the detection of cancer of the uterus, especially of the uterine cervix, is now too well established to require any further comment. Following the pioneer work of Papanicolaou[1] and Papanicolaou and Traut,[2] the studies reported (a few of which are cited[3]) were designed to confirm this early work and to establish the importance and the value of the cytologic method of detection of uterine cancer.

Subsequently, many programs were developed, based on the application of the cytologic method, both for case-finding of uterine cancer as well as to focus attention on the reliability and feasibility of the vaginal smear examination as an effective means of detecting cervical cancer in both the invasive and pre-invasive stages. In addition, some studies were designed to provide information on the pathogenesis and epidemiology of cancer of the cervix. These programs took the form of cytologic screening surveys of such diverse groups as hospital-clinic[4] or industry populations,[5] as well as the total or near-total adult female population of a community.[6] In some cases, the program of uterine cancer detection was included in an overall cancer detection examination, such as is conducted in so-called cancer detection centers or clinics.[7]

The cancer detection centers, while providing facilities for periodic re-examinations, are necessarily limited by staff and space requirements in the number of patients which they can examine. The so-called screening surveys may handle large numbers, but they usually operate on a temporary basis for a definite time period only, and thus provide for only one or two and usually never more than three examinations for a single patient. The screening surveys, particularly those of the single-screening type, operate at a further disadvantage in that patients or facilities are often not available for repeat smears or biopsies if indicated. They do, however, share with the cancer detection clinics the advantage of having a single pathologist or pathologist group examining the specimens and thus provide for uniformity of laboratory interpretation.

In addition to these programs, which have contributed greatly to our knowledge of cancer of the cervix and have demonstrated their value as case-finding projects, there is also a need for a program of a different type, if the full potential of the value of the uterine cytologic method is to be realized. Such a program would

1. include elements of the population that have not been and cannot be reached by the above methods; specifically, the so-called private-practice patients;

The Author

ISIDORE SELZER, M.D.



2. encourage regular, periodic cytologic examinations of these patients;
3. attempt to mobilize and utilize the entire medical resources of the community, including the facilities of all of the available pathological laboratories.

A community program with these objectives has been organized in Southeastern Michigan, and the purpose of this report is to describe its organization and operation and to present preliminary results.

Organization

The Uterine Cytology Program for Southeastern Michigan, which will be described, was patterned after a similar program organized in 1947 in Lucas County (Toledo, Ohio) by the Toledo Academy of Medicine.[8] The Southeastern Michigan program was initiated by the American Cancer Society, Southeastern Michigan Division, which later became the Michigan Cancer Foundation, and is now operated by the latter organization in cooperation with the Michigan Cancer Registry.

The Michigan Cancer Foundation is an independent voluntary agency devoted to cancer control and operates in three counties of Southeastern Michigan—Wayne, Oakland, and Macomb Counties. This area includes the City of Detroit and is thus comparable to what is generally considered the Detroit Metropolitan Area with an estimated population in 1957 of 3,833,490. The official 1960 census listed the population as 3,762,360. This number includes approximately 1,237,000 women, 21 years of age and over.

The Michigan Cancer Registry is a voluntary agency whose primary function is to aid in cancer control by accumulating data with which to assess the nature and magnitude of the cancer problem and to provide material for professional information. It receives its chief financial support from the Michigan Cancer Foundation.

The Uterine Cytology Program is based on the following premises:

1. The method of exfoliative cytology is a practical and effective method of early detection of cancer of the cervix.

2. Deaths due to cancer of the cervix can be virtually eliminated if the lesions are detected early and treated adequately.

3. The most effective means of applying the cytologic method to large segments of the population is through use of all available medical facilities including not only hospitals and clinics, but private physicians' offices and through use of all available pathology laboratories.

The development of the program was undertaken with the realization that its success would depend on the following factors:

1. Patient awareness of the value of the cytologic method in the detection of uterine cancer (especially of the uterine cervix).
2. Cooperation and endorsement of the medical societies in the area.
3. Cooperation of the private physician.
4. Availability of adequate pathology services.

After an outline of the program had been drawn up, and before proceeding with its development, approval of the program was sought from the Michigan State Medical Society, the Michigan Pathological Society, and the county medical societies of each of the three counties involved in the projected program. All of these organizations gave their unqualified approval.

Essentially, the program consists of the following:

1. A program of public education directed towards the adult female population and designed to promote the wider use of the uterine cytologic examination.
2. Steps to acquaint every physician in the tri-county area with the program, at the same time indicating the importance of the uterine cytologic examination in the detection of uterine cancer, and inviting the physician to cooperate in the program. A dignified wall plaque indicating the physician's participation in the program is provided to each physician signifying his interest in the program.
3. A survey of all practicing pathologists in the area, including the submission of a detailed description of the program, its aims and purposes, and a request that the pathologist indicate his willingness and availability to examine cytologic specimens from the female genital tract. This was necessary to assure the availability of adequate laboratory facilities for the anticipated number of cytologic specimens. In this connection, a scholarship program to assist in the training of cytotechnologists was established. Since the program was organized, twenty-eight cytotechnologists have been financially assisted in obtaining their training.
4. Provision for continuity of examination. This is one of the key points in the entire program. It is only through periodic re-examinations that cervical cancer will be detected early enough to offer successful results with adequate treatment. Indeed, it has been stated

that were all adult women examined regularly in this manner, it would be possible to reduce materially or virtually to eliminate deaths due to cancer of the cervix[9]. The means to accomplish continuity of examination is the function of the case register, which was organized as an integral part of the Cytology Program.

5. Adoption of an examination report form for use by the physician in recording patient data and by the pathologist for reporting the results of the cytologic smear examination.

In essence, then, the program is one in which the patient is encouraged to visit her private physician for the uterine cytologic examination. The physician refers the smear specimen to the pathologist with whom he is most closely associated. This maintains the physician-patient relationship which makes for close supervision of the patient and good coordination between the physician and pathologist. The report of the examination is submitted to the registry for processing of the patient data and to provide the basis for the reminder service to the physician in order to insure continuity of examination.

The program is self-supporting insofar as neither of the two operating agencies bears any of the cost of the examination of the patient, either clinical or laboratory. The registry provides the physician and the pathologist with the report forms and underwrites the cost of maintaining the case register which includes the reminder service to the physician.

Operation

Once having been set in motion, the program requires continued public education and continued contact with the professional participants in order to maintain and expand interest in the program. Physicians are furnished with a list of pathologists who have indicated their willingness to participate. Individual pathologists have undertaken to present the program to the staffs of the hospitals with which they are associated, and where necessary, to explain the technique of the vaginal smear.

The second part of the program consists of the operation of the case register (now called the Cytology Registry), and it is only this aspect of the program which will now be considered. The Cytology Registry, originally operated by the Michigan Cancer Foundation, has now become one of the component units of the Michigan Cancer Registry through joint action by the Boards of Trustees of both organizations. The program has been, therefore, so divided that the public education and public and professional relations aspects of the program are carried out by the Michigan Cancer Foundation, and recording and processing of the data and maintenance of the reminder service are the functions of the registry.

The Cytology Registry has two chief functions:

1. To process and to analyze the patient data and to evaluate the results of the cytological examinations. The main source document of the registry is the examination report which contains the patient information, as well as the report of the pathologist. The report is prepared in triplicate, in three different colors, and measures $8\frac{1}{2}$ x 5 inches (Fig. 1). This form containing the patient's information accompanies the smear specimen to the laboratory. When the pathologist has completed his examination of the specimen, he sends one copy of the report to the physician, retains one copy for his files, and sends the last copy to the registry.

2. To furnish to physicians reminders of the due date of the next recommended re-examination. To carry out this function the Cytology Registry records the name and address of each patient whose examination report is received. In addition, the result of the cytological examination and the date of the examination are noted. This determines the subsequent procedure to be followed.

In all cases in which the examination is negative (Class I and II), re-examination reminders are sent to the physician at the time indicated by the pathologist in the report form. This may be in three months, six months or twelve months. If no recommendation is made, it is arbitrarily assumed to be twelve months. In the month preceding the one in which the re-examination is due, a card is sent to the physician reminding him of the re-examination date (Fig. 2). Accompanying this card is a second card (Fig. 3) and an envelope addressed to the patient, to be mailed by the physician. This second card requests the patient to call the physician's office for an appointment. With each notification sent to the physician, there is a short form requesting him to indicate the reason, if the patient is not to have a re-examination at this time (Fig. 4).

In those cases in which a biopsy or other diagnostic procedure has been recommended, re-examination reminders are not used. Instead, a letter is sent to the physician requesting information concerning the type of procedure carried out, the diagnosis and the date. This information is then added to the patient's file.

All the data thus obtained, including the information on the report form and the subsequent information

AUTHORIZATION FOR CELL EXAMINATION FOR UTERINE CANCER

REGISTRY NUMBER ☐☐ EXAM NO. PATHOLOGY LAB NO.

PLEASE PRINT — TO BE FILLED IN BY PATIENT — PLEASE PRINT

MISS / MRS. _____
LAST NAME FIRST MIDDLE

ADDRESS _____
NUMBER & STREET CITY & STATE

DATE OF EXAM / / MO. DAY YR.

BIRTH DATE / / MO. DAY YR.

PREVIOUS SMEAR ☐ YES ☐ NO / / MO. DAY YR.

PHYSICIAN WHO PERFORMED PREVIOUS SMEAR

RACE	RELIGION	MARITAL STATUS
WHITE ☐	PROTESTANT ☐	MARRIED ☐
NEGRO ☐	CATHOLIC ☐	SINGLE ☐
OTHER ☐	JEWISH ☐	WIDOW ☐
	OTHER ☐	SEP. OR DIV. ☐

AGE AT IST MARRIAGE _____
AGE AT 1ST PREG. _____
AGE AT LAST PREG. _____
NOW PREGNANT ☐ YES ☐ NO
NO. OF PREGNANCIES _____

AGE AT ONSET OF MENSTRUATION _____
DATE OF LAST MENSTRUATION / /
MENSTRUAL REGULARITY ☐ REG. ☐ IRREG.
UNUSUAL BLEEDING OR DISCHG. ☐ YES ☐ NO
YRS. SINCE MENOPAUSE BEGAN _____

I AUTHORIZE THE REPORT OF THIS EXAM TO BE SENT TO THE CYTOLOGY REGISTRY.

SIGNATURE OF PATIENT

TO BE FILLED IN BY PHYSICIAN

NAME OF PHYSICIAN _____ ☐☐☐☐☐☐

ADDRESS PHONE

UTERINE CANCER STATUS

NOT SUSPECTED ☐
SUSPECTED ☐
DIAGNOSED PREVIOUSLY ☐

PREVIOUS UTERINE OR PELVIC TREATMENT
LIST TYPE OF TREATMENT WITH DATES

NONE ☐
RADIATION ☐
HORMONES ☐
SURGERY ☐

☐☐ ☐☐☐

TO BE FILLED IN BY PATHOLOGIST

NAME OF PATHOLOGIST _____ ☐☐☐☐☐☐

ADDRESS PHONE

CYTOLOGY REPORT *

☐ UNSATISFACTORY
☐ CLASS I
☐ CLASS II
☐ CLASS III
☐ CLASS IV
☐ CLASS V

REPEAT SMEARS: IMMEDIATELY ☐ 3 mo. ☐ 6 mo. ☐ 12 mo. ☐

RECOMMEND: BIOPSY ☐ D & C ☐ COLDKNIFE CONIZATION ☐

* **SEE REVERSE SIDE FOR DETAILED EXPLANATION**

PHYSICIAN'S COPY

Fig. 1. Cytology report form.

Your patient_____is due to report to you for a routine vaginal smear examination during the month of_____. Please complete the enclosed notification card with your own name and telephone number and send it in the enclosed addressed envelope.

Prompt mailing of the notification card will insure continuity of the cytology program with resultant increase in early diagnosis.

CYTOLOGY REGISTRY
MICHIGAN CANCER REGISTRY
4811 JOHN R
DETROIT 1, MICH.

Fig. 2. Reminder to physician.

IT'S TIME FOR A CHECK-UP!

It has been_____since you had a vaginal cell examination for cancer.

Regular examinations are the most effective means known for detecting early uterine cancer and other serious disorders.

Won't you call right now and make an appointment for your check-up? Please refrain from douching or bathing on the day of your examination as this interferes with the test.

_____M.D.

_____Telephone No.

Fig. 3. Reminder to patient.

received about each patient are transferred to IBM punch cards for machine processing.

Preliminary Summary of Results

Since this is a continuing program, the results to be described are, of necessity, preliminary in scope. The achievements of the program which will now be detailed are those which can be documented through the operations of the registry portion of the program and do not include any data on the educational or promotional aspects of the program. It is obviously impossible to determine how many women sought and obtained cytological examinations, and how many physicians performed these examinations as a result of the stimulus provided by this program, if the reports of such examinations have not been submitted to the registry.

The data presented will indicate some of the activities of the registry from the time it began operations late in 1957 through the years 1958, 1959 and 1960.

Number of Reports.—During this period of approximately three years, reports were received of 35,531

If this patient is not to be examined at this time, will you please indicate the reason by checking one of the following and filling in the date and diagnosis when appropriate.

1. Had repeat smear on.....
2. Moved, unable to locate..
3. Did not respond .....
4. Changed doctor.....
5. Pregnant .....
6. Deceased.....Date.....
   Cause of Death .....
7. Had surgery ..... Date .....
   Type .....

   Diagnosis.....

Please return this slip with the blue card to the Cytology Registry, only if the examination is not to be given when due.

Fig. 4. Questionnaire indicating reasons for omitting re-examination.

uterine cytologic examinations of 29,302 women, all of whom, with only a few exceptions, are residents of the tri-county area (Table I). This is obviously only a fraction of the estimated 1,237,000 women age 21 years and over living in the area. However, it should be emphasized that the figure of 29,302 women

TABLE I. NUMBER OF UTERINE CYTOLOGIC EXAMINATION REPORTS REGISTERED 1957 through 1960

Year of Registration	Number of Initial Examination Reports	Number of Re-examination Reports	Total
1957*	52	—	52
1958	6,609	194	6,803
1959	9,343	1,797	11,140
1960	13,298	4,238	17,536
Total	29,302	6,229	35,531

*Registration began late in 1957.

is not to be construed as indicating the total number of women in the area who received cytologic examinations during this period, but merely the number of women whose examinations were reported to the registry.

Physician Participation.—The women in this group were predominantly private patients who were examined by their own physicians engaged in the private practice of medicine. Of the 35,531 examinations reported, all except 1,266 examinations were performed by private physicians. These 1,266 examinations (3.5 per cent of the total) were carried out in three hospital clinics and one Planned Parenthood clinic. The examinations were performed by 642 individual physicians and one or more physicians in each of the four clinics previously mentioned. This is an average of 55 examinations per physician, with the range being less than 10 reports each for 316 physicians to more than 500 each for 10 physicians. The total of 642 physicians includes five who practise outside of the tri-county area, as well as five osteopathic physicians who together submitted eight reports. This number of physicians amounts to somewhat more than one-sixth of the approximately 3,700 licensed medical practitioners in the area. The latter figure includes specialists who do not ordinarily perform gynecologic examinations in their practise. However, it does not include an estimated 780 osteopathic physicians in the area who have not been directly approached through this program.

Pathologist Participation.—The laboratory specimens included in the 35,531 examinations were examined by 66 individual pathologists and the staffs of three diagnostic laboratories. This is an average of 576 reports per pathologist, with the range being less than 15 reports each for 23 pathologists to more than 1,000 each for 12 pathologists. Three pathologists and the three laboratories are located outside of the tri-county area. Thus, during this period 63 pathologists practicing in the area participated in the program and submitted most of the reports.

Reminder Service.—In 1958, during the first year of operation, less than 200 re-examination reminders were required. During 1959, which was the first year in which a sufficient time interval had elapsed to require routine re-examination, 7,000 patient reminders were sent to physicians. In 1960, this number increased to approximately 11,000. The response to these reminders is difficult to gauge accurately, but on the basis of reports received, only about one-fourth of the patients first registered in 1958 and 1959 had been re-examined once by the end of 1960. A small number of patients had been re-examined several times, and two women had been examined a total of eight and nine times each during this period. Some of these re-examinations were performed at short intervals, the indication being either the clinical judgment of the physician or the recommendation of the pathologist, in the case of an atypical smear. Most of the re-examinations were performed routinely in previously negative cases, and it is mainly this type of case in which the registry's reminder service attempts to function.

Patient Data.—Of the 29,302 women whose cytologic examinations have been recorded, data is available at this time on only 16,004 patients, and the remainder of this discussion will refer only to this group of women whose initial examination reports were received in 1957, 1958 or 1959.

Of the 16,004 women for whom information was recorded, 15,263 were white and 511 non-white; 14,343 were married, 391 single, 728 widowed, and 404 separated or divorced. The youngest patient in the group was 14 and the oldest was 91 years of age. The majority were in the middle age-groups, with 10,030, or about two-thirds of those whose ages were recorded, being in the range from 30 to 49 years. Of the women in this series, 648 were pregnant at the time of the first examination reported.

Examination Results.—These 16,004 women had a total of 21,765 examinations during the years 1957 through 1960. 4,343 were examined twice, whereas

TABLE II. RESULTS OF CYTOLOGIC EXAMINATIONS IN 21,765 EXAMINATIONS OF 16,004 WOMEN REPORTED 1957-1960

Results of Smear Examinations	Number of Smears 1st Exam.	Per Cent of Total 1st Exam.	Number of Smears 2nd Exam.	Per Cent of Total 2nd Exam.	Number of Smears 3rd Exam.	Per Cent of Total 3rd Exam.	Number of Smears 4-9th Exam.	Per Cent of Total 4-9th Exam.
Unsatisfactory	115	0.7	28	0.7	6	0.6	1	0.3
Negative (Class I)	15,286	95.5	4,113	94.7	986	93.8	341	92.9
Atypical (Class II)	123	0.8	87	2.0	29	2.8	12	3.3
Suspicious (Class III)	222	1.4	52	1.2	13	1.2	8	2.2
Suspicious (Class IV)	200	1.2	53	1.2	16	1.5	3	0.8
Positive (Class V)	58	0.4	10	0.2	1	0.1	2	0.5
Totals	16,004	100.0%	4,343	100.0%	1,051	100.0%	367	100.0%

two women were each examined eight and nine times, respectively. The number of smear examinations per patient and the results of these examinations as reported by the cytopathologists are noted in Table II.

Three per cent of the smears were positive or suspicious at the first examination, 2.6 per cent at the second examination of 4,343 women, and 2.8 per cent at the third examination of 1,051 women. The time interval which has elapsed between the third and subsequent examinations is too short and the number of women involved too small for any meaningful evaluation of these later examinations.

Cancer Cases Diagnosed.—A major task of the registry has been and continues to be the effort to obtain information on the subsequent course of all the patients registered. Major emphasis thus far has been centered on those cases in which the smear result warranted a biopsy or other diagnostic procedure. Through the routine use of follow-up procedures in such cases and with the excellent cooperation of the participating physicians, the registry has been able to collect reports of 105 cases of uterine cancer occurring in 104 of these 16,004 women. These are newly diagnosed cases occurring in women with no previous history of malignant disease of the cervix or uterus. In one woman, carcinoma *in-situ* of the cervix was found at the time of hysterectomy for mixed mesodermal tumor of the endometrium. Of the other neoplasms, 94 (90 per cent of the total) were primary in the cervix, seven were primary in the fundus, and in the remaining two cases it could not be determined whether the primary site was cervix or fundus. Including the case of the double primary, 54 of the epidermoid carcinomas of the cervix were pre-invasive, 36 were invasive and three were of an unspecified extent (Table III).

In 97 of the 104 women in this series in whom a diagnosis of cancer was made, the procedure leading to the diagnosis was carried out following a report of a suspicious or positive smear, either at the first, second or third examination. In 86 of these cases, the smear specimen preceding the diagnosis was suspicious or positive at the first examination reported. In 10 cases, the first smear specimen was negative, but the second smear was suspicious or positive after an average interval of 10 months. In one case, there were two negative smear reports followed one year after the second report by a suspicious smear which led to the diagnosis of cancer. In the other seven cases, a negative smear report was submitted to the registry and subsequently, a report of the diagnosis of cancer was made. In these seven cases, the time interval between the negative report and the diagnosis of cancer averaged four months, with the longest period in any one case being nine months.

TABLE III. PRIMARY SITE AND HISTOLOGICAL DIAGNOSIS OF 105 NEWLY-DIAGNOSED CASES OF UTERINE CANCER IN 104 OUT OF 16,004 WOMEN

Primary Site and Histological Diagnosis	Number Cases	Per Cent of Total
Cervix		
Epidermoid carcinoma		
In-situ	54*	51.4
Invasive	36	34.3
Extent not stated	3	2.9
Adenocarcinoma	2	1.9
Total	95	90.5%
Fundus		
Adenocarcinoma of endometrium	7	6.7
Mixed mesodermal tumor	1*	0.9
Total	8	7.6%
Uterus		
Site unspecified	2	1.9
Total	105	100.0%

*One patient with two primary neoplasms.

Of special interest is the case of the woman, aged 42, whose first cytologic examination was reported as positive. The biopsy that followed revealed only chronic cervicitis. Fifteen months following the first smear report, a second cytologic examination was again reported as positive. At this time, biopsy of the cervix revealed the presence of carcinoma *in-situ*.

These 104 women with newly diagnosed cancer were divided into 99 white and five non-white. Of the latter, four were Negro and one was Oriental.

Ninety of the women were married, nine were widowed, four were separated or divorced, and one was single. This last patient was a Negro, aged 41.

As expected from the age distribution of the women in this series, the majority (63) of the 104 cases fell in the age range 30 to 49. Of the 74 cases below age 50, only one was primary in the fundus. Seven of the eight fundal cases were in the age group 50 to 79. The youngest patient with *in-situ* carcinoma was 23, and the oldest was 71 years of age. Only five of these patients were over 50, one being the woman aged 71, who had coexisting mixed mesodermal tumor of the endometrium. Sixty per cent of these patients with *in-situ* carcinoma were below age 40, with the peak number being in the 30 to 39 age group. On the other hand, of the women with invasive carcinoma, the youngest was 31 and the oldest 78. Less than 20 per cent were below age 40, with the peak number being in the 40 to 49 age group (Table IV). The average age for the *in-situ* group was 36.6 years, and for the invasive group, 49.3 years. Three of the women were pregnant at the time of the suspicious or positive smear reports. Two had *in-situ* cancer and one invasive cancer.

TABLE IV. AGE DISTRIBUTION IN DECADES OF 16,004 WOMEN AND NUMBER OF UTERINE CANCERS OCCURRING IN EACH AGE GROUP

Age Group (years)	Number of Women Examined	Number of Cancers in Each Group by Site				
		Cervix			Fundus	Undetermined
		In-Situ	Invasive	Other		
14-19	118					
20-29	2,262	11				
30-39	5,510	21	7	2		
40-49	4,520	17	15	3	1	
50-59	1,934	4	5		3	
60-69	669		6		2	1
70-79	152	1	3		2	1
80-89	20					
90+	1					
Not recorded	818					
Total	16,004	54	36	5	8	2

Summary and Conclusions

A description of the organization and operation of a community uterine cytology program is presented. The program includes the operation of a case register with a re-examination reminder service to physicians to help insure continuity of examination. During the first three years of operation, 642 individual physicians and the staff physicians of four clinics participated in submitting reports of 35,531 examinations of 29,302 women. Among the first 16,004 women of this series, 104 were found to have cancer of the cervix or uterus.

The number of cases of cervical cancer (95) occurring in this group produces a prevalence rate of 5.9 per 1,000 women. This is within the range of the prevalence rates reported in similar studies in Memphis-Shelby County, Tennessee, first screening (6.7),[6b] Toledo, Ohio (6.3),[6c] and Honolulu, Hawaii (5.5).[10]

Preliminary results indicate that this type of program is of value in promoting the use of the cytologic method for the detection of uterine cancer. Further efforts are needed to expand the program to involve more physicians. Insufficient time has elapsed to assess the value of the reminder service and the principle of continuity of examination.

Acknowledgments

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Public Health Problem

Even though the death rate for pneumonia-influenza has declined more than 80 per cent since 1900, these diseases "still constitute a major public health problem," Health Information Foundation reports. They took the lives of over 65,000 Americans in 1960, or about as many as died that year of hypertensive heart disease.

In the January-February issue of *Progress in Health Services*, the Foundation outlined recent trends in influenza and pneumonia, showing that "remarkable advances in medicine and in public health have brought the communicable diseases under considerable control." In 1900 the combined influenza-pneumonia group of diseases was the leading cause of death, with a death rate of 202.2 per 100,000 population. By 1960 this group had dropped to sixth place among the leading causes of death and its crude death rate was down to an estimated 36.6 per 100,000.

Malignant Mesotheliomas

Case Report

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DIFFUSE mesothelioma is recognized to be a relatively uncommon neoplasm with numerous curious and interesting facets. Two such cases have been studied here during the past year. They represent the only two cases among 2,560 autopsies over a 12-year period at this hospital.

Case 1.—The patient was a 34-year-old white woman, who was admitted with the chief complaint of back pain and fever. The pain was in the low back bilaterally, intermittent, and was sometimes sharp in nature of about three weeks' duration. During this same time, she had noted some dark, brownish urine but denied any frequency or dysuria. Additional complaints were those of weakness, fatigue and easy bruisability. She denied any chills, but the temperature taken just prior to admission was 103 degrees orally.

Past history and review of systems were non-contributory. She had been in relatively good health.

The patient appeared ill, was quite pale, though fairly well nourished. Blood pressure was 115/55. Pulse was 116. Temperature was 102.2 orally. Weight was 145 pounds. There was no icterus or adenopathy. The abdomen was soft and no distinct masses were noted. There was some bruising at the site of the venipunctures though no petechiae were noted. No CVA tenderness found.

Initial laboratory work showed a hemoglobin of 8.1 grams, hematocrit of 23 per cent, MCHC of 35, white count 14,550, p.m.n. of 65, lymphs 23, and 1 mono. Sedimentation rate was 26. Urine showed 12-15 white blood cells and a few bacteria. VDRL was negative. Urine culture showed no growth. During the hospital stay, the patient had a continuously elevated temperature usually in the range of 102. She was given sulfa in the form of Sulfadiazine and Gantrisin, Penicillin, Streptomycin and Chlormycetin, all without any symptomatic response. During this period, numerous tests were done. Blood cultures were negative on two occasions. All febrile agglutinations were negative. The chest radiograph showed no abnormalities. IV P was normal, and lumbrosacral spine was normal. Platelet count was 143,920, reticulocytes 0.2, bilirubin negative, BUN 11, fasting blood sugar 112. Skin tests for tuberculosis, histoplasmosis, blastomycosis and coccidioidomycocis were all negative. Stools were negative for ova, parasites and blood as was the sigmoidoscopy. Bone marrow was not helpful as mainly peripheral blood was obtained.

The patient continued to deteriorate during her hospital stay. LE cells were not found on two occasions. On the 17th hospital day, the development of ascites was noted. All antibiotics were stopped, and the patient was placed on Meticorten 10 mgs. q.i.d. Two days later, her temperature returned to normal and remained there. The ascites increased and a paracentesis was done recovering 9 liters of yellow, slightly cloudy, thin fluid with specific gravity of 1.017, proteins of 2.7 grams per cent with 70,000 red blood cells, 25 white blood cells per cubic millimeter. No tuberculosis organisms were seen on smear. Only occasional, gram-negative cocci were reported. There was no growth on culture, and no malignant cells were identified. After the paracentesis, nodular masses could be felt in the abdomen to the left of the umbilicus. The patient deteriorated progressively despite transfusions and other supportive therapy and died on the 24th hospital day. Repeated blood counts during her stay showed the persistence of anemia and high white count despite transfusions.

At autopsy, the peritoneal cavity contained the basic pathologic changes. The peritoneal cavity contained approximately 1000 cc. of dark yellow fluid, and all surfaces of the peritoneum were covered by a thickened layer of gray-white tissue.

The omentum was in a thick gray mass measuring 15 x 13 x 3 cm. Tumor in the mesentery caused shortening and distortion of the mesentery. Microscopically, the neoplasm was seen to be fibroblastic, as well as containing a number of histiocytoid and pseudo-alveolar type cells. The neoplasm had infiltrated most of the abdominal organs and in addition had diffusely infiltrated bone marrow.

Case 2.—The patient was a 59-year-old white man, with a history of having had influenza one month previous to his admission, who, although ill remained at work. In the month's time, he had lost his appetite, became easily fatigued and had noticed increased shortness of breath and discomfort in the right lower chest. He had wheezy breathing and a dry non-productive cough, which became worse in a recumbent position. It is stated that he had a fever, especially at night. His symptomatology became so severe that he returned home from work in another city to seek medical care. It is further stated that he had been in relatively good health until the present illness.

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The laboratory work-ups were essentially negative. No blood sugar tests were done. X-rays showed pleural effusion. Bronchograms showed bronchiectasis of the right lower lung field. Thoracotomy revealed the presence of a diffuse pleural tumor which studded the parietal pleura, as well as the visceral pleura and diaphragm and extended into the mediastinum. Sections were taken for biopsy.

The patient had a gradual downward course. At autopsy, the right lung was completely encased in gray, firm neoplastic tissue which covered the visceral and parietal pleura to an average thickness of 1 cm. The tumor was seen to extend into the lung substance in many places, as well as infiltrating the mediastinum. Masses of tumor were seen in the left chest cavity. The tumor had infiltrated the diaphragm and

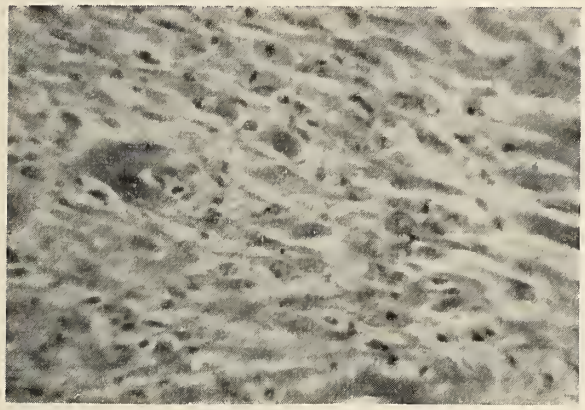


Fig. 1

there were metastatic nodules seen in the heart, pericardium, lymph nodes, abdomen, adrenals and liver. The basic pattern was of a fibroblastic type cell; large giant cells being present, as well as numerous polyhedral histiocytoid cells. The pattern of the neoplasm was similar in all locations.

Discussion

Mesothelial cells have a multipotential as evidenced by the varied descriptions which appear under the title of mesotheliomas. It is accepted that secretory, fibroblastic and phagocytic type cells can be derived from mesothelium. Gross and microscopic findings presented conform to previous descriptions of diffuse complex mesothelioma. All three cell types, histiocytoid, pseudo glandular, and fibrous, are seen to good advantage. Extent of metastases is striking and explains the clinical picture. The patient in Case 1 had unexplained anemia and a fever without abdominal complaints. Only in the later stages did the primary intra-abdominal neoplasm become evident. Extensive invasion of



Fig. 2

the bone marrow was the only spread observed outside of the abdominal cavity. The fibrous element predominated in the bone marrow metastases whereas the tumor over the peritoneal surface was more pleomorphic with histiocytoid and pseudo glandular structures. Hypoglycemia was not found on one determination. Bone marrow metastases had been reported, but not to this extent nor as causing the striking hematologic changes. Case 2 shows evidence of direct and vascular spread outside of the pleural cavity, mainly to the abdominal organs and to the heart.

Summary

Two cases of malignant diffuse mesothelioma are presented, both showing widespread metastases of the varied cell types and a rapid fatal outcome of the disease. No specific therapy was instituted in either case and the effects of steroids in Case 1 is conjectural.

Fewer Pedestrians Killed in Motor Vehicle Accidents

Life has become less hazardous for pedestrians on the streets and roadways of the United States. The toll of pedestrians killed in motor vehicle accidents decreased from 5.9 per 100,000 population in 1949 to 4.4 in 1959, a reduction of more than 25 per cent. This is in sharp contrast to the rise from 15.4 to 17.1 per 100,000 in the death rate from other types of motor vehicle accidents, in which the large majority of victims are drivers and passengers.—*Statistical Bulletin*, September, 1961.

Cancer Fundus Uteri

History of 189 Cases in Private Practice

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THE CONSECUTIVE cases included in this report consist of all known carcinomas of the fundus in the community from January, 1938 to January, 1961. Proved histological diagnosis was rendered in each. All but three cases went through the hands of a single radiotherapy office. During the twenty-three-year span all patients with radium application were admitted to one of two hospitals. A 98 per cent follow-up was obtained. One major feature in this review is that the modality of treatment was fundamentally standardized throughout.

The disease characteristically occurs in obese, often hypertensive, women and with occasional findings of diabetes and nulliparity.[3] If one defines females weighing over 170 pounds as obese and those with pressures above 150/90 as hypertensive, then 42 per cent of this series are obese and 35 per cent are hypertensive. Hypertension then, is about 10 per cent higher than the national average. The number of definite diabetics was 10 per cent as compared to a national average of 1 per cent. One might note that 19 patients weighed less than 120 pounds.

TABLE I. AGE AND WEIGHT STATISTICS OF 189 PATIENTS WITH FUNDUS CANCER

Patients in their	30's	40's		50's	60's	70's		80's
Number of patients	6	25		57	65	32		4
Mean age	59.8 years							
Weight range of patients	Below 100	100 to 119	120 to 139	140 to 159	160 to 179	180 to 199	200 to 219	220 Plus
Number of patients	4	15	39	31	37	18	14	30
Mean weight	167.8 pounds							

Symptomatology

By reason of rather extensive literature concerning fundus carcinoma, remarks will be kept rather brief. Corpus cancer is fundamentally post-menopausal with its highest incidence at about sixty years of age. The mean age of these 189 patients was 59.8 years, but there were four in their 80's, twenty-five in their 40's, and six in their 30's (Table I).



The Author

R. C. HILDRETH, M.D.

In the 80 per cent who are post-menopausal, there is a wide range from innocuous spotting to sudden vaginal hemorrhage. Even three to five years of spotting is not uncommon, though I must add, less common than it used to be. Abdominal discomfort was also present in about one fourth of the cases.

The cardinal dictum remains that any post-menopausal bleeding must be considered under the category of fundal neoplasm until proved otherwise.

Pathology

All of these reported fundus cancers were adenocarcinomas with varying degrees of malignancy from the relatively benign adenoma malignum to the fulminating anaplastic carcinoma. Duration of symptoms is not a reliable prognostic index.[6] Since associated fibroids were found in 20 per cent of cases the need

should be recognized for routine D and C procedure in menorrhagias before performing hysterectomy.

Broders' classification was used with one pathologist reporting on 85 per cent of this series in a county whose population was 150,000 in the year of 1950. At that time there were approximately 160 active medical doctors in community service. Nine other pathologists supplied the tissue diagnosis in the remaining 15 per cent of the cases. Some 40 surgeons were involved in the surgery performed.

In a rather close analysis of the pathological grading of these fundus tumors, I have found very little correlation between the grading and patient survival. This includes the series of 16 cases reported by the pathologists as adenoacanthomas. Functioning tumors of the ovary along with granulosa and theca cell forms may occasionally be confused with endometrial carcinoma. This occurred in two cases, and these were eliminated from this reported series. On the other hand, there were two cases with definite metastases of fundus cancer to the ovaries. This extreme difficulty in accurate diagnosis of tumor origin deserves emphasis since it also occurs in 2 per cent of any series of case reports involving gynecological cancer.[5] In our "Pap" era, this is worth remembering.

Pathologists also recognize endometrial hyperplasia in patients with high glucose tolerance curves even though they are not definitely diabetic. This suggestion of pituitary-adrenal-ovarian imbalance as one of the factors in the etiology of endometrial carcinoma calls for further research.

Prognosis

Prognosis of the average fundal neoplasm is considerably better than the average ovary or cervix cancer. During this same twenty-three year interval, there were 240 cases of carcinoma of the cervix and 161 cases of neoplasms of the ovary. A slight relative gain in number in fundus patients has occurred the last ten years.

Clinical staging remains the cardinal factor in prognosis. Its application is more complicated than with cervix lesions for two reasons. The first is due to the increased patient obesity and anatomic differences in tumor spread. The second relates to the difference in average patient age—with a cervix mean age of approximately 47 years and with a fundus age mean of 60 years. A much larger number of complicating diseases in the older age bracket, therefore, accompanies the fundus group. This fact alone raises havoc when reporting five-year relative or absolute survival figures. Acquiescing to a reporting of three-year rather than five-year survival rates in fundus cancer is not the answer. A reporting of selective groups of cases is also confusing.[10] Who among us is not concerned over figures in reports designated as "those receiving part of their treatment elsewhere" or "eliminating those in whom the disease was too advanced for treatment"? One of the noncontroversial factors in the reporting of McWhirter of Edinburgh is his inclusion of all cases regarding a given disease from a certain community.

Proper clinical staging is imperative in those special endometrial carcinomas that extend to involve the endocervix, for in such instances the patient must be treated as a cancer of the cervix, rather than be given the routine for fundus tumor.

Two patients in this series were considered early clinical grade 1 cases who were expected to do well and yet they quickly went down hill to an early demise. This unusual type has been of concern to others.[2] Regardless of the difficulty we have with staging this disease entity, let us continue efforts towards simplifying and improving the methods, since gains in this endeavor would be most rewarding.

Treatment

From 1938 to 1961, a fairly standard form of treatment was adhered to and advocated. The fact that few places in the U. S. had established a preferred uniform plan of attack on cancer of the fundus as far back as 1939 is one reason of interest in the statistical presentation shown in Table II. The preferred plan voiced to each patient when possible consisted of a series of x-ray treatments, then intrauterine radium and this followed by hysterectomy some 10 to 12 weeks later. The reasoning of the radiotherapist being that this tumor usually fell in the more radiosensitive group.[8] Also that although hysterectomy is the bulwark in the treatment of this disease, many patients are poor surgical risks. In the third place, properly administered radiation would not increase the surgical difficulties but might rather convert a few inoperable cases into operable ones. Remaining cores of tumor cells could be excised safer without danger of spreading.[11]

How has this worked out? We find that irradiation alone has been used more often than intended because of the number of poor risk patients with complicating cardiovascular disease, obesity or advanced nature of the neoplasm.

Only 22 per cent followed through with the pre-

ferred treatment routine in the series of 144 patients seen previous to 1956 (Table II). This is the series on which we report five-year survival figures. Hysterectomy, either as a diagnostic procedure or as a primary form of treatment, was much more common prior to 1951 and the two cases with metastases to the remaining cervix occurred in this earlier period.

TABLE II. FIVE-YEAR SURVIVALS IN 144 PATIENTS WITH FUNDUS CANCER FROM 1938 TO 1956

Treatment	Number of Cases	Living and Well at Five Years	Five-Year Survival Percentage
Surgery plus X-ray	30	10	33%
X-ray plus radium	79	57	72%
X-ray plus radium plus surgery	25	15	60%
Surgery alone	2	1	
X-ray alone	2	1	
Radium alone	2	1	
Incomplete X-ray treatment	4		
Total	144		

A full 10 per cent rise in five-year survivals in the first five years of the 1950's as compared to the 1940 years of surveillance is apparently due both to earlier diagnosis as well as to the less frequent use of the hysterectomy procedure as a primary method of treatment.

The highest five-year survival figures on Table II would seem to support the philosophy of Kottmeier[7] in his preferred use of irradiation methods in the treatment of this disease to almost the exclusion of surgery.

TABLE III. FORTY HYSTERECTOMIES FOLLOWING IRRIDIATION TREATMENT OF FUNDUS CANCER

	1938-1956	1956-1961	Totals
No cancer cells found	18	11	29
Visible cancer cells reported	7	4	11
Totals	25		40

In the 25 cases prior to 1956, 11 of the 18 and 4 of the 7 are five-year survivals.

Table III shows the 40 hysterectomies performed following x-ray and radium treatment. In these uteri, our pathologists have reported finding cancer cells in 11 and no evidence of visible cancer cells in 29 of them. Of the seven post-irradiation hysterectomy patients showing cancer cells and operated on prior to 1956, we find that four of these patients are living and well at five years. Of even greater interest are three patients with so-called delayed hysterectomies. For one reason or another, each had her uterus out more than two years following her x-ray and radium treatment. The finding of cancer cells in these three uteri certainly suggests that the cells were dormant and nonreproducing since two of the three women were living and well at five years.

Technical changes in the application of external x-rays were minor during this 23-year span with some improvement in filters, distance and portals, but really very little change in actual dosage as measured to the midpelvis. The method of radium application was held constant using small capsules in tandem varying only in length of uterine canal. No uterine canal was dilated larger than 6 mm. in diameter for radium application which was a holdover in the French method for using extreme care of neoplastic tissue. The sieve-like character of the occasional uterine venous plexus which is visually appreciated by those doing fluoroscopic uterograms would tend to support this original French philosophy. A better and more uniform radium procedure is today available in the so-called "packing" method.[4] Certain improved x-ray techniques are now also in vogue as compared to the methods used in the reported series.[9]

Clinical Notations

Just what is the life expectancy of a 75-year old woman with hypertension and cancer of the fundus as she enters your office?[1] The rare clinical grade 1 patient, who does poorly in spite of the best of treatment, keeps one humble in spirit. This paper would not be complete unless one also mentions the excellent palliation that irradiation offers in many advanced cases. Of the four patients who came with swollen legs at the onset of treatment, we find two living and well at five years. The suggestive obturator node invasion may, therefore, carry a slightly less ominous flavor than with cervix cancer cases. Three to four years of useful life is not uncommon in treated advanced fundus cancer cases.

Only one of these 189 patients had had previous

pelvic irradiation. In 1931, she received eight deep therapy treatments which cured her menorrhagia. Thirteen years later she reported with cancer of the fundus and was living and well on her five year interval. Her uterus was not removed since she weighed 235 pounds some twelve weeks following the radium treatment.

One patient had a hip fracture, but this was felt to be unrelated to the irradiation. Radiogold was used in one advanced case that perforated during the diagnostic D and C. This patient is living and well at four years. There were three cases with pyometria at the time of radium application, a somewhat less number than found in cervix cases. The series includes a set of two post-menopausal sisters.

All patients receiving irradiation treatment had intravenous urograms performed at the onset of treatment. All patients receiving radium had frontal and lateral radiographs at the twenty-four-hour interval for position checking.

Multiple primary malignancies commonly involve the female organs.[12] Two of our fundus patients had primary breast malignancies later on, one developed lymphosarcoma later, and a fourth patient developed later a primary urethral cancer.

Conclusions

1. All uterine fundus carcinomas seen in a twenty-three-year period, in a county of 150,000 population, have been treated according to a fairly standard plan and philosophy.

2. Effort has been made to expose the common complicating factors of age, obesity and hypertension in this disease entity, as they seriously influence clinical staging, prognosis and treatment.

3. Earlier diagnosis has increased five-year survivals by more than 10 per cent during the 1950's as compared to the 1940's.

4. The best survival figures are found in that group treated by x-ray and radium alone.

5. The presence of cancer cells in a post-irradiated uterus does not mean that the cells are capable of reproduction.

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Hemophilia Type B Carriers

Ted P. Bond, M.D., University of Texas, speaking at the Tenth Annual Symposium of Blood at Wayne State University School of Medicine in January, reported that a research program with his associate, M. Mason Guest, M.D., formerly at Wayne, included a method of determining carriers of Hemophilia Type B. His laboratory uses a modification of a blood clotting test which employs a soy bean extract. Samples from carriers of Hemophilia B always showed a protein compound found in normal blood.

Malignant Melanoma

Review of the Treatment of 134 Patients

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Angelos Kambouris, M.D.
Robert Ewert, M.D.
Victor Horvitz, M.D.
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MALIGNANT melanoma is considered by many one of the most lethal forms of cancer; its behavior varies widely and it responds inconsistently and unpredictably to various forms of treatment. Certain factors, however, become obvious when one assesses the case records of those patients who have poor results: (1) melanoma has an inherent ability to metastasize early by both lymphatic and hematogenous routes and thus is often diagnosed late in its course; (2) no standardized therapeutic approach is followed; and (3) most physicians are pessimistic about the prognosis of this form of cancer.

Despite the excellent opportunity afforded for early diagnosis because melanoma usually* originates on the skin, 22 per cent of the patients in this study had distant metastases when first seen. Treatment varied widely: local excision without skin graft was most frequent; 22 patients had regional node dissection; 24 had adjunctive radiation therapy, and no extremity was totally removed.

The patients were treated in four hospitals by many physicians. While all four hospitals are affiliated with Wayne State University College of Medicine, two are private and two government-supported. The number of patients from each type of hospital is approximately equal.

*Unusual primary sites are esophagus,[6,7] anus and rectum,[7] or ovaries;[3] occult melanoma is rare.[4,8,9]



Author

HENRY J. VANDENBERG, JR., M.D.

The purpose of this paper is to examine treatment procedures as carried out for this representative group of patients.

Material

Records of 134 patients seen prior to January 1957 at Grace, Harper, Receiving (Detroit) and Veterans Administration (Dearborn) Hospitals were examined; each patient had a histological diagnosis of malignant menanoma. Age ranged from seven* to 87 years with an average of 52 years. Pigmentation records showed 95 per cent of the patients were white and 5 per cent were Negro.

In 48 per cent of the records, no information was available concerning the presence of nevi prior to development of melanoma; prior nevus was reported as present in 42 per cent of the patients and absent in 10 per cent. The length of presence of nevi was reported for 38 patients; 26 of these had had a nevus over 10 years, while only four reported a nevus of less than one year's duration. Where change in nevus character had been recorded (31 cases), it had occurred less than three months before admission in 10 patients, from three to 12 months before in 10, and more than 12 months before in the remaining 11 patients.

At the time of hospitalization, the primary tumor was identified in 87 patients (65 per cent); 33 (24 per cent) had had treatment to the primary melanoma, and no information was available for 14 (10 per cent). Table I indicates the site of primary tumor. While

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Read at the meeting of the Michigan Chapter of the American College of Surgeons, March 7, 1961.

*Although juvenile melanoma does not usually metastasize, the seven-year-old child had cerebellar metastases discovered at craniotomy.

the largest surface area (trunk) expectedly contained most primary sites, the plantar surface of the foot harbored the largest number of primary locations (14 in 26 lesions) in proportion to surface area.

At the time of admission, disease was confined to the site of origin in only 42 per cent of patients. It had spread to regional lymph nodes in 24 per cent and to distant sites in 22 per cent of the patients. All those with widespread disease also had clinically detectable disease in the lymph nodes (Table II).

TABLE I. LOCATION OF PRIMARY TUMOR

	Patients	Per Cent
Trunk	39	29
Foot	26	19
Head and neck	20	15
Arm	12	9
Eye	12	9
Leg	6	4
Hand	5	4
Genitalia and anus	2	2
Unknown	12	9
Total	134	100

Treatment

Excision of the primary tumor was done 58 times. This figure includes nine instances of wide re-excision of the primary site either for prophylaxis or local recurrence. It was not always possible to determine whether the excision was limited or wide. Some indication of the extent of resection is gained from the

TABLE II. STATUS OF DISEASE ON ADMISSION

	Patients	Per Cent
Local	57	42
Spread to nodes	32	24
Generalized	30	22
Unknown	15	12
Total	134	100

fact that a skin graft was placed in the operative defect in only six cases. Amputations of toes were considered wide local excisions. Nineteen of the 22 excisions of the primary tumor with node dissection were in discontinuity. Four amputations were at the low thigh and one at the mid tarsal level. Twenty-four patients received radiation therapy, 10 to the primary site after excision, 12 to node areas, and two for palliation of disseminated disease. Nitrogen mustard was given to four patients.

For 56 patients, the interval from the time of definitive treatment to death could be determined (Table IV).

Thirty-five patients (63 per cent) died within two years and 42 (75 per cent) within three years. An additional 15 per cent died within three to five years and 10 per cent died more than five years after treatment.

TABLE III. TREATMENT PROCEDURES

Excision of primary tumor	58
Excision of primary with node dissection	22
Enucleation of eye	8
Amputation	5
Irradiation	24
Local excision or biopsy of metastases	15
Chemotherapy	4
Palliative treatment only	17

Relation of Surgical Treatment to Five-Year Clinical Cure

Results of treatment were available for 67 patients treated by excision of the primary tumor and excision with lymph node dissection as shown in Table V.

Of 45 patients treated by local excision of the tumor, three (7 per cent) survived five years or more

TABLE IV. TIME FROM TREATMENT OF PRIMARY TUMOR TO DEATH
56 Patients

	Patients	Per Cent
Under 1 year	10	
1-2 years	25	75
2-3 years	7	
3-5 years	9	15
Over 5 years	5	10

without disease. Of 22 patients who underwent local excision of the primary tumor with regional lymph node dissection, 11 (50 per cent) survived five or more years. It is obvious that in this group of patients significantly better results were obtained when excision of the tumor was accompanied by lymph node

TABLE V. RELATION OF SURGICAL TREATMENT TO FIVE-YEAR CLINICAL CURE

Treatment	Treated	Survived	Per Cent
Local excision	45	3	7
Local excision and node dissection	22	11	50
Total	67	14	

dissection. Report of the status of disease in lymph nodes was available for 20 of these patients. Metastatic disease was present in nodes of 12 patients; seven (58 per cent) survived five years. No metastatic disease was found in surgical specimens of eight patients; four of these (50 per cent) survived five years. Therefore, survival was not significantly affected by

the disease status of the nodes. Five of eight patients (63 per cent) treated by eye enucleations survived five years without recurrence.

TABLE VI. END RESULTS

	Patients	Per Cent
Living without disease	24	18
5 years	19	14
3 years	5	4
Died without disease (of other causes)	5	4
Failures of treatment	81	60
Lost to follow-up	24	18
Total	134	100

End Results

Nineteen patients (14 per cent) were living without disease at five years; five at three years. Five patients died of other causes without evidence of recurrent melanoma within three years of their treatment. Eighty-one (60 per cent) were included in the group "failures of treatment." Included are: (a) those who died of their disease; (b) those who died from other causes with disease present, and (c) those found to have disseminated melanoma at the time of admission. If one excludes the 30 patients with disseminated disease present at admission, an adjusted five-year cure rate is 19 per cent. This would be a more objective expression of the effectiveness of treatment.

Discussion

The overall five-year cure rate of 14 per cent and the corrected one of 19 per cent are considerably lower than many of those reported in the literature.[4,8,10] The large number (22 per cent) of patients with disseminated disease accounts partly for the results. Inadequate initial treatment was probably responsible for many of the failures. Local excision and wide local excision (tumor with a radius of at least 3 cm. of normal skin) was about equally divided in the 45 patients. The fact that a skin graft was applied to the surgical defect in only six instances suggests that many excisions of primary tumors may have been inadequate. Booher and Pack,[1] using wide excision with routine skin grafting for foot and hand lesions reported a five-year cure rate of 34 per cent.

An unexpected observation was that lymph node dissection was equally successful regardless of whether nodes were positive or negative. Some surgeons have been dissuaded from performing prophylactic lymph node dissections because they fear dissemination of disease in an extremity by lymphatic blockage following discontinuous lymphadenectomy. Others advise an interval of from three to six weeks between excision of the primary tumor and lymph node dissection.[5] The combination of node dissection and regional perfusion may help to prevent this form of treatment failure. While presence or absence of metastases in lymph nodes appeared unrelated to cure in the small group of patients who had lymph node dissection, the physician's attitude toward the regional nodes seems to have influenced end results. We find that regional lymph node dissection gave significantly better results than excision of the primary tumor alone or with radiation therapy.

Only one of the 24 patients who received radiation therapy as an adjunct to surgical treatment survived five years. His treatment consisted of local excision and radiation therapy of a primary tumor of his forehead followed by radical neck dissection for metastatic disease. Dickson[2] reported better results with combined surgical and radiation therapy than operative treatment alone.

Summary

The records of 134 patients with malignant melanoma admitted to four general hospitals prior to 1957 were reviewed. Average age was 52 years. A preexisting nevus was present in 42 per cent of the patients, not present in 10 per cent, and not referred to in the records of the remainder. The primary tumor was present on admission to the hospital in only 65 per cent of the patients. The greatest concentration of primary tumors was on the foot (26 patients). At the time of admission, disease was confined clinically to the primary site or regional nodes in 66 per cent of the group. Surgical treatment was principally excision of the primary tumor (45 patients) and excision of the primary tumor and regional node dissection (22 patients). Adjunctive radiation therapy was given to 24 patients, one of whom was in the cured group. The overall five-year cure rate was 14 per cent, corrected to 19 per cent when patients with disseminated disease on admission are excluded. The cure rate for excision of the primary tumor alone or with radiation therapy was 7 per cent, for excision of the primary with node dissection 50 per cent. Success in the latter group was independent of status of disease in the nodes.

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Nutritive Need

In the March 16 issue of *Hospitals*, Journal of the American Hospital Association, Writer Dolores Nyhus said the nutritive needs of the aged are the same as those of a younger person, except for a reduced need for calories. Aged persons, particularly those confined to nursing homes, frequently fail to eat adequately.

She pointed out specifically:

If the meal is attractively served, it may help the patients to feel wanted and to reawaken an interest in life.

Too large servings may present too much of a challenge. However, when small servings are offered, they must be followed by seconds. Many patients will not or cannot ask for more.

Food should be tasty, varied, and well seasoned. The sense of taste dulls with age and older people do like sharp, definitive flavors.

Care should be taken in prejudging a person's ability to eat solid foods on the basis of his teeth. Some may want foods which require little chewing, but "they do not want food which has been cooked, ground or pureed until it has lost all identity."

Measles Vaccine?

A killed-virus measles vaccine, to which reactions were "practically nonexistent," performed remarkably well in last May's measles epidemic in Philadelphia. Six clinicians reported that measles was prevented in all children receiving three doses of the new experimental vaccine.

The investigators vaccinated a total of 953 children from six months to six years old. A control group of 953 children in the same age brackets was observed but not inoculated.

Of twenty-one cases of fever reported among vaccinees as a possible side effect of vaccination, seven were associated with infections of the tonsils, the ear, and of the upper respiratory tract. The remainder reportedly were probably coincidental since they occurred only after one dose of vaccine and were confined to two geographical neighborhoods.

Cancer of the Larynx

Experiences in Treatment

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THE TREATMENT of cancer of the larynx has shown considerable change in the last two decades. The changes have been directed toward more complete removal of the primary lesion and block resection of metastatic nodes of the neck. There has also been an effort directed at defining more clearly the role of radiation therapy in the treatment of this disease.

TABLE I. SQUAMOUS CARCINOMA OF THE LARYNX AND HYPOPHARYNX
Jan., 1948—Dec., 1957

Total Cases	76
Average age	60 years
Youngest	29 years
Oldest	80 years
Sex	
Male	73 (95%)
Female	3 (5%)

In an attempt to obtain a better evaluation of our experience in the treatment of cancer of the larynx at Detroit Receiving Hospital, the patients treated for this disease from January, 1948 to December, 1957 were reviewed. Patients reviewed are limited to those where a definite tissue diagnosis of squamous cell carcinoma of the larynx was made.

Results

The total number of patients admitted during that period was seventy-six. Of these seventy-six patients, seventy-three (95 per cent) were male. The average age of these patients was 60.01 years, thus emphasizing that this is essentially a disease of elderly men.

In the entire series, there was only one case in which the lesion was limited to a mobile vocal cord. The rest of the patients had relatively far advanced disease. This is expected, since most of our patients are within the low income group and tend to seek medical aid only after the disease has been present for some time.

TABLE II. EVENTUAL OUTCOME
(ALL CASES)

Cause of Death	
Local neck disease	43
Distant metastases	3
Other causes (autopsy)	6
Other causes (no autopsy)	6
Cause unknown	5
Postoperative causes	1
Total deaths	64
Total alive without disease	12

The results of the entire series are summarized in Table II. Forty-three of the seventy-six patients died of local disease. Local disease, in this series, refers to carcinoma which is present either at the site of the primary tumor or in the cervical lymph nodes. Only three of these patients died of metastases outside of the head and neck area, emphasizing that cancer of the larynx, even in its extrinsic form, tends to remain a localized disease for a long period of time. Most of the fatalities in the treatment of this disease result from our failure to control the disease locally.

For the 10-year period, 12 of the 76 patients were alive after three or more years and have no clinical evidence of cancer (15.8 per cent). Seven of 76 patients were alive five or more years (9.2 per cent) without disease. However, not all of these patients received definitive therapy, as will be shown later.

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The series of cases is divided into two main groups: intraluminal and extraluminal (Fig. 1). The intraluminal group are those cases in which the cancer was limited to the lumen of the larynx; this means either glottic, supraglottic or sub-glottic carcinomas or, more

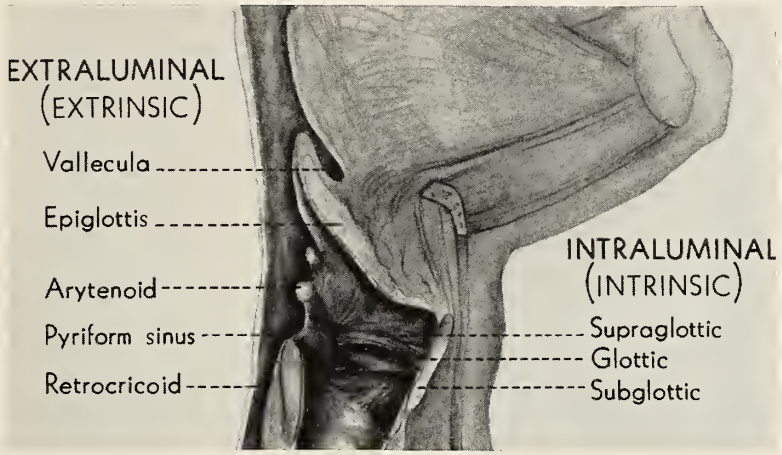


Fig. 1

often, combinations of these. The extraluminal group are those in which the carcinoma involved the structures beyond the confines of the lumen of the larynx. All cases that had a lesion involving the vallecula, epiglottis, posterior aspect of the arytenoid cartilages, the pyriform sinus or post cricoid area or combinations of these areas, were placed in the extraluminal or extrinsic group.

Twenty-three patients treated for extraluminal carcinoma received a complete course of x-ray therapy. Nineteen of these died of their disease and in most instances, there was inadequate initial control with persistence of disease. Four of these died of other causes. In two patients, autopsies revealed bronchial pneumonia in one and lung abcess in the other. No definitive statement was made regarding the presence

TABLE III. DEFINITIVE EXTRALUMINAL CASES

	Surgery	X-Ray	Combination	Total
Cases treated	12	23	3	38
Died of disease	8	19	3	30
Died other causes	4	4	0	8

Table III shows the results obtained in extraluminal patients who received definitive therapy. Thirty-eight patients were accepted for treatment in this group. Twelve of these were treated surgically. Most of these had either a laryngectomy or laryngoscopy and radical neck dissection in continuity. Eight of these patients died of their disease. Seven of the latter patients developed local neck recurrence which eventually led to death, thus showing that surgery had not encompassed the entire extent of the primary lesion or that "seeding" had occurred. Four of these patients died of other causes. Of two patients who had autopsies, one died of heart disease and one of acute alcoholism. Post-mortem examination revealed no evidence of carcinoma. Two other patients who died had been seen in the tumor clinic shortly before their deaths and had no clinical evidence of carcinoma. One died of "heart trouble" and the other died of cause unknown. Neither patient had autopsy performed.

or absence of carcinoma at the primary site. One patient was well for nine months after x-ray therapy, only to die of a gunshot wound. No autopsy was performed on this patient. There is another patient in our series on whom we have a record of death, but in which there is no definitive statement regarding the cause of death. One patient in this group survived five years. This patient received two courses of x-ray therapy only to die of his disease two months after passing the five-year mark.

The group of patients who received planned, combined surgical and x-ray therapy, fared just as poorly. The three patients who were accepted for treatment all died of their disease.

Our overall results in the treatment of extrinsic

carcinoma of the larynx and hypopharynx, therefore, were quite poor.

Our results in the treatment of intraluminal carcinoma of the larynx are shown in Table IV. A total of 21 patients received definitive therapy and, of these, 12 are alive three or more years and have no clinical evidence of persistent cancer. Of these 12 patients, seven have survived five years or longer.

TABLE IV. DEFINITIVE INTRALUMINAL CASES

	Surgery	X-Ray	Combination	Total
Cases treated	18	8	3	29
Died of disease	5	5	1	11
Died of other causes	3	2	1	6
Alive three or more yea s	0 (55.5%)	1 (12.5%)	1 (33%)	12 (41.3%)

Eighteen of these patients were treated with surgery, and this usually consisted of laryngectomy or laryngectomy and neck dissection. Five of these patients died of local disease, and this was usually a spread to the neck. Three of these patients died of other causes. Ten are alive three or more years. This gives a three-year survival rate of 55.5 per cent.

Eight patients were treated with x-ray therapy alone. Five of these died of their disease. Two died of other causes and one patient is alive three or more years. This case was the one in which the carcinoma involved the vocal cord only and the cord was mobile. This gives a survival rate of 12.5 per cent for this mode of treatment.

Only three patients received a planned combined x-ray and surgical approach. One of these patients died of his disease, one died of other cause and one patient is still alive.

Discussion

This study has demonstrated that very few patients developed distant metastases and that carcinoma of the larynx tends to remain localized for a long time. Good treatment of the local disease should provide an improvement in the overall results. The majority of the patients died either because of failure to control the primary in the larynx or because of recurrence in the neck area.

Our recurrence rate is particularly disappointing where combined laryngectomy and neck dissection was performed. Two of these patients developed recurrences in the skin of the operative site and this could very well have been due to the "seeding" of the tumor during the operative removal. During the period under study, wound irrigation was not done following tumor removal. In the past two years, we have routinely employed irrigation with Dakins solution (sodium hypochlorite solution). On completion of irrigation, the patient is completely redraped, the surgeons redressed, and a new set of instruments is used for wound closure. It is too early to determine the effect of these precautions on our results.

In four cases where laryngectomy and radical neck dissection were carried out, there was a recurrence in the neck which was thought to be tumor tissue developing in a node which had not been removed with the neck dissection. It is important that during neck dissection there be complete removal of all areas of potential tumor extension. It is also important to emphasize the importance of removing all tumor-bearing tissue in the posterior-superior corner of neck dissection.

In three of the patients undergoing laryngectomy, there was a recurrence in the upper air or food passages, probably due to inadequate removal of the primary. The adequacy of wide surgical removal of the primary, especially in cases with a subglottic extension, should be emphasized.

In our series of cases, the results with x-ray therapy have been extremely poor, and this applies not only to the extrinsic carcinomas but also to those lesions within the lumen of the larynx. The results of radiation treatment of glottic carcinoma or carcinoma limited to the vocal cord are well established and certainly this mode of therapy has a role in treating this type of carcinoma. However, the role of x-ray therapy in the treatment of carcinoma of the larynx that has advanced beyond the confines of the cord, is very doubtful. In most cases, the x-ray therapy failed because it did not adequately control the primary lesion. In the few cases where the combined method of therapy was used, the results are also relatively poor and do not seem to offer any advantage over the use of surgery alone.

Our results also bear out the much poorer prognosis in the treatment of extrinsic carcinoma of the larynx when compared with those for treating the intraluminal type. In the extrinsic cases, we had no five-year survivals, whereas in the intraluminal type there was an overall survival rate of 41.3 per cent with

all modalities and 55.5 per cent when surgery alone was used.

From all these data, it would appear that it is extremely important to make an accurate and detailed preoperative evaluation of the larynx. The degree of involvement of the larynx with carcinoma markedly influences not only the survival rate but also should greatly influence the choice of therapy.

Other authors have pointed out the value of x-ray therapy in the treatment of the lesion limited to the vocal cord and where the vocal cord is still movable.[1,2,3] However, when the lesion extends beyond this point, into the supraglottic area, a laryngectomy should be the method of choice and this should, in certain cases, be combined with a neck dissection.[4,5] In cases where the subglottic larynx has become involved, a neck dissection is indicated, irrespective of whether cervical nodes are palpable or not.[4] In cases where extrinsic structures of the larynx are involved, more radical means of therapy are necessary. In these cases, a pharyngo-laryngectomy with radical neck dissection in continuity should be the procedure of choice.[4,6] We should again emphasize the importance of wide local excision of the lesion and of a very thorough, complete neck dissection.[5] We are also employing irrigation of the wound to prevent local seeding of the tumor.

Conclusion and Summary

An evaluation of 76 patients admitted to Detroit Receiving Hospital for carcinoma of the larynx and hypopharynx from January, 1948 to December 1, 1957, is presented. The overall results reveal 15.8 per cent of all patients alive three or more years. Sixty-seven of the patients received definitive therapy.

1. The results of treating extraluminal or extrinsic carcinoma of the larynx are poor.
2. Intraluminal carcinoma treated with surgery gave a 55.5 per cent three-year cure rate; x-ray therapy, a 12.5 per cent cure rate, and a combination of therapy, 33 per cent cure rate.
3. A consistent finding in patients who fail to respond or survive with treatment, was local recurrence or persistence of carcinoma in the larynx or neck. Only a small percentage of patients died of distant metastases, thus emphasizing the importance of adequate local control.
4. A detailed, accurate evaluation of the extent of carcinoma of the larynx, is essential to proper therapy.

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Digital Computer as Aid to Differential Diagnosis

In this study, an attempt was made to determine the feasibility of using an electronic digital computer as an aid in differential diagnosis. Symptoms, physical signs, and laboratory data characterizing 20 hematological diseases were compared with data of 49 hospital cases with hematological abnormalities. The differential diagnosis of each case was written out by the computer, together with information stating whether a positive diagnosis was made, or requesting that certain specific additional tests should be performed. The information returned after the analysis stated that a "positive diagnosis" had been made in 28 of the cases. In the remaining cases, further tests were requested in order to establish a positive diagnosis. The information returned contained at least the hospital diagnosis in all instances. In this study, an incorrect positive diagnosis could not be presented if the data of the hospital case were correct.—M. LIPKIN et al, *Arch Intern Med*, 108:56 (July) 1961.

Cancer of the Larynx

Diagnosis and Treatment

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IT IS the purpose of this report to present our experiences over the past fifteen years with the diagnosis and treatment of 243 patients with cancer of the larynx and hypopharynx. Ninety-eight per cent of the patients had primary squamous cell carcinomas while two per cent had other than primary squamous cell lesions.

Eighty per cent of the patients in the present series were fifty years of age or older. No patient was under thirty years of age. Men are affected more frequently than women.

Diagnosis

The outstanding symptom of primary true vocal cord cancer is hoarseness. In spite of this early symptom, more than 57 per cent of the 127 patients with true cordal malignancies did not report for examination until the lesions were in an advanced stage of the disease (Fig. 1). This danger signal is so significant that any patient with hoarseness of three weeks' duration should be considered to have cancer until proven otherwise.

On the other hand, patients with primary malignancies arising in anatomical areas other than the true vocal cords have symptoms which are more vague (Fig. 2). Discomforts in swallowing, pain radiating to the ears, localized throat pain and the feeling of a lump in the throat may be the only symptoms present. Expectoration of blood is uncommon. Since these early symptoms are so indefinite, the patient invariably is first examined in an advanced stage of the disease. One hundred sixteen patients had primary lesions which arose in areas other than the true vocal cord.

In patients with hoarseness and vague throat complaints, every effort should be made to examine the patient's larynx and hypopharynx by the indirect or direct methods. Diagnostic adjuncts are finger palpa-



Fig. 1. *(left)* In spite of early hoarseness, this patient did not report for initial medical examination until the squamous cell carcinoma of the left true vocal cord was in an advanced stage.

Fig. 2. *(right)* Primary squamous cell carcinomas arising in locations other than the true vocal cords produce hoarseness as a late symptom. Drawing is a composite of lesions observed in six different patients.

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tion, contrast medium roentgenographic studies, tomography and in special instances thyrotomy. In every suspicious case, biopsy and microscopic tissue examination should be performed. Microscopic cell studies from smears of these areas are not recommended, since tissue biopsy studies are for the most part readily obtained and are more dependable.

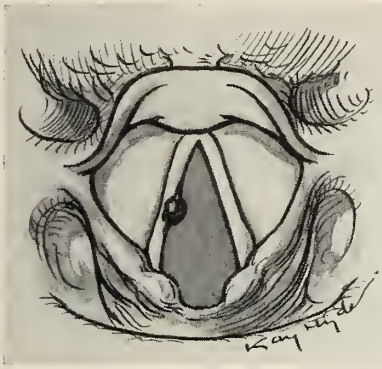


Fig. 3. Small 1 to 3 mm. squamous cell carcinomas are ideal for surgical removal by the intraoral route (direct laryngoscopy, forceps removal and fulguration of the base).

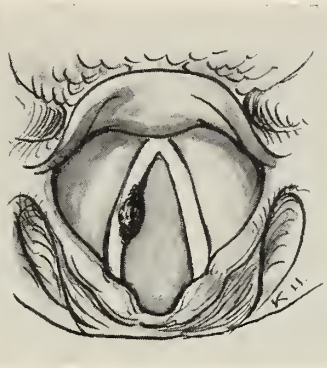


Fig. 4. Squamous cell carcinomas localized on the middle one-third of the true vocal cord can be treated equally well by surgery or x-ray therapy.

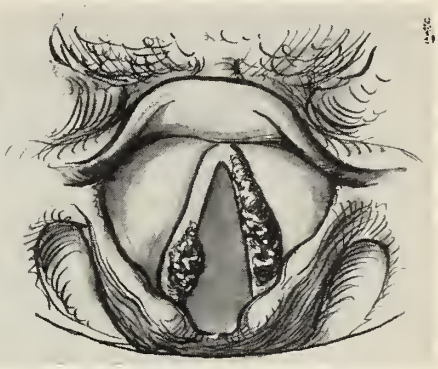


Fig. 5. More extensive true vocal cord cancer may be successfully treated by hemilaryngectomy. Lesions from two separate patients are illustrated.

Site of Origin

It is axiomatic that malignancies of the true vocal cord or cords metastasize later in the course of the disease than do those that arise in anatomical locations other than the true vocal cords. This is true because of the limited lymph channels of the true cords as contrasted with other areas. In this series of patients, when the malignancies were of the supraglottic areas, 34 per cent had palpable cancerous cervical lymph node metastases when first examined. Sixty-six per cent of the patients with pyriform sinus malignancies had palpable metastatic lymph nodes. However, only 1.5 per cent of those patients with primary vocal cord cancer showed palpable lymph nodes.

The anatomical site of origin of the cancer is of utmost importance to the clinician not only as to availability of the lesion for biopsy and outlining methods of treatment, but in determining prognosis for arresting the disease. Other factors of importance are size of the primary lesion, ulceration, edema, impairment of function, exophytic growth and obstruction.

Cell Differentiation

Vocal cord squamous cell carcinomas, for the most part, are rather well-differentiated in their patterns of growth, whereas primary lesions occurring in anatomical areas other than the true vocal cords tend to be less well-differentiated. Single biopsy specimens may be misleading regarding cell differentiation and only after microscopic tissue examinations of the excised lesion may the true cell patterns of malignancy be determined. The patient's treatment is not influenced by cell differentiation except in those occasional instances wherein highly anaplastic cell patterns are noted. Patients with such lesions will be discussed later.

Treatment

There are two principal forms of treatment available for patients with cancer of the larynx: namely, surgery and x-ray therapy. These two methods should not be considered as competitive. The physician's obligation is first to arrest the cancer and second to preserve function. Ideally, the surgeon and x-ray therapist should work together. It requires teamwork to advise the patient as to whether surgery or x-ray therapy should be the principal decisive curative therapy. It is not feasible to advise x-ray therapy with the reservation that surgery is available if x-ray therapy fails. Likewise, surgery should never be carried out with the proviso that if it fails x-ray therapy is available. Our experiences during the past fifteen years amply bear this out. In only rare cases is x-ray therapy useful in the treatment of unarrested cancer following surgery. In patients who were treated by x-ray therapy and required surgery later, the five-year survival rate was 50 per cent.

Patients with 1 to 3 mm. squamous cell carcinomas arising in the middle one-third of one true vocal cord are best treated by direct laryngoscopy and forceps removal (Fig. 3). The base is usually fulgurated. The voice is unimpaired. Five-year survival rates are in

the neighborhood of 94 per cent, comparing favorably with skin cancer treatment in this respect.

Larger primary lesions of the middle one-third of the true vocal cord can be treated successfully by the surgeon or x-ray therapist (Fig. 4). By either form of therapy, our data indicate that the five-year survival rates are in the neighborhood of 84 per cent. Laryngofissure, of necessity, impairs vocal function to a greater degree than does x-ray therapy. On the other hand, x-ray therapy has not been without complications in the treatment of patients with cordal lesions for in this series of 243 patients, five have been laryngectomized because of chondronecrosis of the thyroid cartilage. Laryngectomy was considered life-saving in these five patients.

Hemilaryngectomy (with skin graft or laryngoplasty) is the operation of choice in patients who have still larger primary lesions of the true vocal cords. This is particularly true wherein the lesion encroaches upon the vocal process of one of the arytenoid cartilages or extends along one vocal cord (Fig. 5). Survival rates are comparable with the above cases by this method of treatment.

Laryngectomy is considered the treatment of choice in patients where the primary lesion is still localized within the confines of the thyroid cartilages of the larynx. This may be most difficult for the clinician to determine. However, such signs as size, ulceration, edema, limitation of function, exophytic growth and anatomical location of the primary lesion may aid in this decision. Most laryngectomy operations are performed in cases of cancer arising on the true vocal cord or cords, while only a few cases are suitable when the primary cancer arises in the supraglottic areas (Fig. 6). In the present series of 243 cases, when these criteria were met, approximately 75 per cent of the patients who underwent laryngectomy survived five years or more.

Laryngectomy and block dissection of the neck in continuity must be considered in patients whose primary malignancy is extensive and where there has been actual cervical lymph node metastases. If lymph nodes are not palpable, yet the primary lesion is large and is in an anatomical area where the lymphatic drainage is abundant (supraglottic, including epiglottis, infraglottic, pyriform sinus and hypopharyngeal areas) then block dissection is indicated on an elective basis. The frequent finding of microscopic nonpalpable lymph node metastases in the excised cervical tissues amply supports this dictum. Further support for this prophylactic radical surgery lies in the fact that only 25 per cent of the patients had survived five years when lymph nodes had declared themselves following laryngectomy.





Fig. 6. *(left)* Note ventricular squamous cell carcinoma invading the ventricle and the region above the anterior commissure of the true vocal cords.

Fig. 7. *(right)* Note extension of lesion from petiolus of epiglottis to false vocal cord area, and extension below the true vocal cord. Contralateral block dissection of the neck was done later because of the presence of microscopic lymph node metatases in this specimen.

Contralateral block dissection of the neck is performed at a later date when indicated and not at the time of initial laryngectomy and ipsilateral block dissection. The indications for the second block dissection are usually found in patients with extensive bilateral true vocal cord cancers; in patients with supraglottic primary lesions near or crossing the midline of the larynx, and in those with unilateral supraglottic primary lesions where metastatic cervical lymph nodes have been found in the excised tissues of the ipsilateral block dissection (Fig. 7). Unilateral pyriform sinus lesions frequently metastasize bilaterally. Such

bilateral cervical metastases are also prone to occur in patients with subglottic primary cancer. In patients treated with laryngectomy and block dissection alone, the five-year survival rate was 55 per cent. When the patients required contralateral block dissection (laryngectomy and block dissection in continuity and later contralateral block dissection), the five-year survival rate was 25 per cent.

Certain patients with limited primary lesions of the hypopharyngeal wall, epiglottis and supraglottic structures may be treated successfully by partial pharyngectomy or partial laryngectomy, provided block dissection of the ipsilateral side of the neck is done in continuity. Since there has been a limited number of such surgical techniques indicated in the whole series of 243 patients, there are no meaningful five-year survival statistics available.

Although seen infrequently, some patients with highly anaplastic squamous cell primary lesions in these areas are best treated by x-ray therapy initially. These patients have a poor outlook with any form of treatment, yet evidence is accumulating that x-ray therapy may convert some of these patients into the status of operability.

No treatment is complete in laryngectomized patients unless provision is made for their speech rehabilitation and return to useful living. In cooperation with paramedical personnel, this can be accomplished reasonably well by the teaching of esophageal speech. Proper patient motivation is the keynote. Patients who fail to learn esophageal speech can usually be helped by the electro-larynx.

Miscellaneous Groups of Patients

Five patients in the whole series of 243 cases had primary lesions of the larynx other than squamous cell varieties. A brief listing of these shows one case each of the following cell types: myxosarcoma, lymphosarcoma, lymphoepithelioma, melanoma and pseudosarcoma. Such lesions of the larynx fortunately are rare. The prognosis for five-year survival is poor. Three have died, one is living (lymphoepithelioma case) eleven years following x-ray therapy, and one patient with pseudosarcoma is living three years following laryngectomy and block dissection of the neck.

Four patients had multiple primary squamous cell carcinomas of the larynx and hypopharynx in addition to the original local squamous cell primary lesion. Treatment for the most part consists of a combination of surgery and x-ray therapy.

Four patients had submucosal primary lesions which were most difficult to diagnose by routine methods. Two of the patients were diagnosed only after thyrotomy was done to obtain the biopsy specimens.

Thirteen patients had distant distinct other primary malignancies as: lung, seven cases; tonsil, four cases; prostate, one case, and testicle, one case.

Conclusions

1. Ninety-eight per cent of the malignancies of the larynx are of the squamous cell type.

2. The outstanding symptom of primary true vocal cord cancer is hoarseness, yet 57 per cent of the patients with such lesions did not report for examination until the lesion was advanced. Cancer arising in areas other than the true vocal cord is characterized by vague symptoms. Patients are more understandably seen in this instance in later stages of the disease.

3. Cervical lymph node metastases are more frequent in cases with noncordal primary cancer, as compared to cases with cordal lesions.

4. Early squamous cell carcinomas arising on the true vocal cord can be treated equally well by x-ray therapy or conservative surgery. Laryngectomy is for the most part reserved for patients with advanced cordal cancer and cases with early supraglottic lesions. Block dissection in continuity with laryngectomy will be necessary occasionally in cases with cordal cancer. In patients with primary lesions other than the true vocal cord, block dissection is frequently done, often as a prophylactic measure, along with laryngectomy or partial pharyngectomy.

5. The overall five-year survival rate for patients with cordal cancer with all forms of treatment is 70 per cent, while the rate for patients with noncordal lesions with all types of treatment is 28 per cent. In further analysis of 138 patients treated five years or more ago, the survival rates are as follows, according to the type of treatment: x-ray therapy alone, 34 per cent, x-ray therapy and surgery, 50 per cent, and surgery alone, 60 per cent.

The Proteins of Synovial Fluid

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INTEREST in the composition of synovial fluid is obviously related to clinical problems. There is, however a second reason for studies in this area, which relates to the general question of the composition and function of the "amorphous ground substance." Synovial fluid, as also ground substance, is an extracellular fluid, that is, a blood dialysate or ultrafiltrate which has been modified by the inclusion of mucopolysaccharides from the surrounding tissue cells.[43] Therefore, this fluid serves as a useful model for the study of the role of the various constituents in the connective tissue ground substance.

Being derived from the blood, synovial fluid contains most of the electrolytes and substances of low molecular weight in roughly the same concentrations as in the plasma. However, because of a certain degree of capillary permeability to larger molecules, there is present a significant concentration of serum proteins.

This review is restricted to the soluble proteins of serum origin which are found under normal conditions in synovial fluid. No effort will be made to discuss the composition of the synovial fluid under pathological conditions.

General Composition of Synovial Fluid

Much of the data on the composition of human synovial fluid has been obtained either from the use of post mortem material or traumatic effusions and, therefore, can only be considered as approximations of the normal state. Because of the difficulty of obtaining quantities of normal human fluid, many studies have been performed on the readily available bovine synovial fluid. Table I compares the overall composition of human and bovine synovial fluids.

The substances unique to synovial fluid and ground substance are the mucopolysaccharides whose function and chemistry have been extensively studied and reviewed by Meyer.[21,23] Actually the analogy of synovial fluid to ground substance breaks down here because the fluid contains only the one mucopolysaccharide, hyaluronic acid, whereas ground substance generally contains mixtures of the sulfated polysaccharides, chondroitin sulfate A, B, and C, as well.[22] Hyaluronic acid is an unbranched polymer (molecular weight of 1 to 1.5 million) of the disaccharide, N-acetyl hyalobiuronic acid. The latter is composed of equal molar quantities of N-acetyl glucosamine and glucuronic acid combined in β-1, 3 glycosidic linkages, while these units are in turn joined by β-1, 4 glycosidic bonds.

TABLE I.

Constituent	Human	Bovine
Hyaluronic acid (mg/100 ml)	297 (56); 321 (11); 360 (17)	193 (56); 45 (17)
Total protein (gm/100 ml)	4.97 (6); 2.8 (56, 41); 2.57 (47); 2.15 (13)	0.89 (43); 1.3 (30); 1.2 (56); 0.8 (41); 1.8 (12)
NPN (mg/100 ml)	26.1 (6); 47 (41)	21 (43); 45 (41)
A/G ratio	2.08 (41)	2.48 (43)
pH	7.39 (44)	7.31 (43)
Urea (mgN/100 ml)	15.8 (6)	8.2 (43)
Glucose (mg/100 ml)	Approx. same as serum (44)	66 (43)
Total sodium (meq/1000 ml)	136 (47)	145 (43)
Total chloride (meq/1000 ml)	106–121.7 (16)	110.5 (43)

The mucopolysaccharides are often found under physiological conditions as loosely formed complexes with the soluble proteins. Such complexes are usually termed "mucoproteins." In many instances, these may be responsible for the particular properties of the tissue, for example, the lubricating properties of synovial fluid,[35] the structural capacity of vitreous humor, Wharton's jelly and cock's comb[14,15] and the binding together of collagenous and elastic fibers[19] in many connective tissues.

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Protein Constituents of Synovial Fluid

Human synovial fluid has approximately 1/3 the protein content of serum (2.5 gm./100 ml.) while the bovine fluid has one-seventh the content of serum (1.0 gm./100 ml.). Albumin/globulin ratios of these fluids are generally higher than those of the serum. This is caused by a preferential permeability of the capillary membranes to albumin molecules while certain of the globulins are restrained or even excluded from the synovial cavity. It is of fundamental importance to determine which of the serum proteins normally enter this tissue.

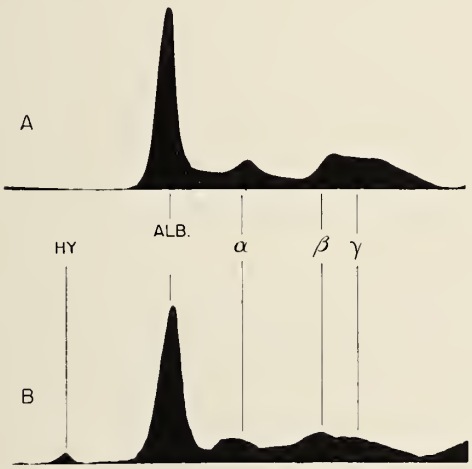


Fig. 1. Electrophoretic separation of bovine serum (A) and synovial fluid (B) proteins using the Tiselius moving boundary technique. The peaks are HY, hyaluronic acid; ALB, albumin; α, alpha globulins; β, beta globulins; and γ, gamma globulins.

A definitive study of these proteins was made possible with the development of electrophoretic techniques. Studies using the moving boundary method of Tiselius show the presence of all of the recognized major protein regions migrating with the same mobilities as in the serum.[3,18,36,37,38,41,45,55] Figure 1 is a comparison of the moving boundary electropherogram of bovine synovial fluid with that of the corresponding serum. The fastest moving peak is hyaluronic acid and is followed by albumin, alpha, beta, and gamma globulins.

Zone electrophoresis in various supporting media has greatly simplified this method. Electrophoresis on paper yields separations of the synovial fluid proteins comparable with those obtained by the moving boundary method.[24,25,49] Separations in a starch gel medium yield a higher degree of resolution. A single electropherogram (Fig. 2) shows the similarity between the proteins of bovine synovial fluid and serum. The 8 zones are named by convention, albumin, alpha globulin, 4 beta globulins, a slow (S) alpha globulin and gamma globulin. Using this technique, Schmid found a coincidence of patterns between the proteins

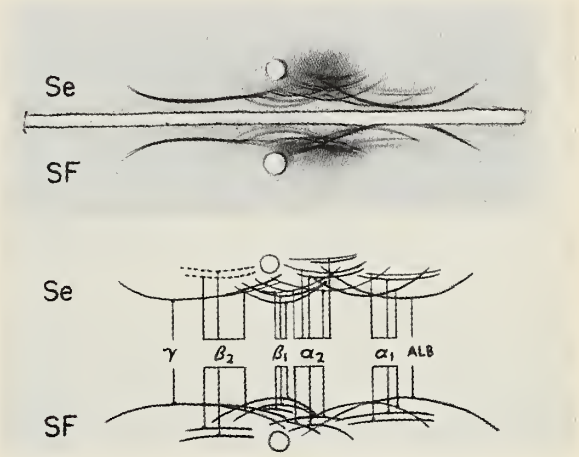


Fig. 2. Separation of normal bovine serum (Se) and synovial fluid (SF) proteins using zone electrophoresis on a starch gel medium. The two samples were placed side by side on the same electropherogram: SF on upper half, Se on lower half. Arrow indicates the point of origin. The identification of zones are those used by convention.

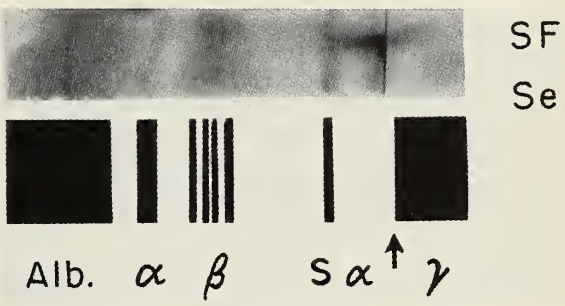


Fig. 3. A comparison of proteins in normal human synovial fluid (SF) with those of serum (Se) using the technique of immunoelectrophoresis. The schematic pattern shows the similarity in all but the α_2 globulin region.

of post mortem fluids and serum.[51] The elegant method of immunoelectrophoresis, which is assuming increasing popularity, leads to an even higher degree of resolution. In this method the electrophoretically separated proteins are visualized by an antigen-antibody reaction. Figure 3 is such an immunoelectropherogram using normal human synovial fluid. In agreement with published results, this pattern demonstrates the presence of all the serum proteins with the possible exception of the alpha-2 and beta-2 macroglobulins.[9,50,53]

Electrophoresis can also be used to compare the separations of specific classes of proteins such as the glycoproteins. Electrophoretic separation is first made in a rectangular block of a thick paste of starch made with the desired buffer. Then the block is cut into consecutive 1 cm. segments which are eluted in turn with saline. Determinations of total proteins and hexosamines on these eluates yield patterns such as shown in Figure 4.[29,30] Such data show that the amount of hexosamines in the alpha and beta globulin proteins of synovial fluid is significantly greater than in serum. Electrophoretic separations of both bovine and human synovial fluid on paper strips yield similar results;[12,13] these data are summarized in Table II. It is concluded that the glycoproteins pass through the capillary membranes in preference to other globulins.

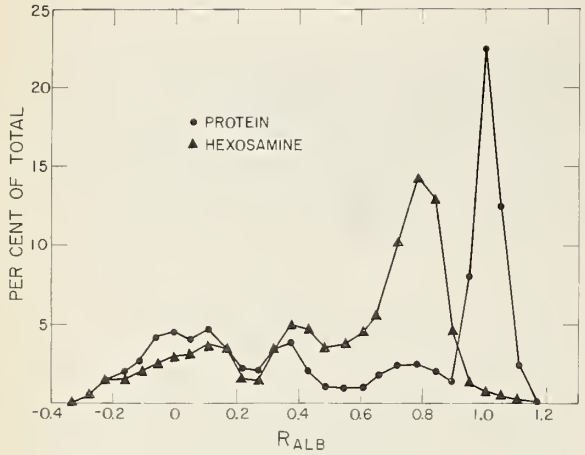


Fig. 4. Typical protein and glycoprotein patterns for bovine synovial fluid obtained by electrophoresis on a starch block. Electrophoretic zones are named in accordance with convention: i.e., albumin at R_{a1b} 1.0 followed by α, β, and γ at R_{a1b} of 0.2 to —0.3. The total protein and hexosamine values are expressed as per cent of total in all the eluates (reproduced by permission of editor, Journal of Biological Chemistry).

The conclusions derived from the electrophoretic data have been confirmed by other means. The proteins of synovial fluid, when fractionated with ethanol at low temperatures by the Cohn procedure, yield the same six fractions as obtained from plasma.[52,53,54] If human post mortem fluid is used, Fraction I does not clot and, therefore, does not contain fibrinogen.[53] Pathological fluids, on the other hand, yield a fibrinogen containing Fraction I.[52] Fraction VI, which corresponds primarily to the alpha-1 region of electrophoresis, is obtained from post mortem fluid in approximately five times the quantities obtained from normal plasma.[53]

A second procedure for the fractionation of synovial fluid proteins involves precipitating the bulk of the total proteins with 0.6M perchloric acid. The perchloric acid soluble proteins, the "seromucoid" fraction, are then precipitated with phosphotungstic acid. This fraction consists primarily of the alpha globulins of which the chief protein is orosomucoid. This protein has a molecular weight of 41,000, a total carbohydrate content of 41 per cent, and a hexosamine content of 12.0 per cent. The seromucoid level in bovine synovial fluid is almost twice that in the serum (2.8 and 1.6 per cent of the total protein for synovial fluid and serum respectively).[28] When fluids and sera from patients with osteoarthritis or rheumatoid arthritis are used, a similar relationship in the seromucoid fractions is observed.[24,25]

TABLE II. ELECTROPHORETIC DISTRIBUTION OF SYNOVIAL FLUID PROTEINS AND GLYCOPROTEINS

Synovial Fluid	Proteins (%)					Glycoproteins (%)				Ref.
	Alb.	α 1	α 2	β	γ	α 1	α 2	β	γ	
Normal	50.0	12.1		12.3	25.5	59 6		21.3	19.1	30*
Bovine	50	14		16	21	59		28	14	12**
Human postmortem	56	8	7	11	18	50	13	22	16	13**
Traumatic	58	6	8	12	16	43	19	20	18	13

*Glycoproteins determined as hexosamines; electrophoresis on starch.
**Glycoproteins visualized by periodic acid-Schiff reaction; electrophoresis on paper. Alpha-1 values represent albumin+ alpha-1.

Specific biologically active proteins may be demonstrated in synovial fluid. Some studies, for example, have been made on the presence of enzymes. Bovine synovial fluid contains an amylase,[42] a protease,[42] a lipase,[42] and a peroxidase.[44] Alkaline phosphatase is present in unusually high levels in the normal bovine fluid.[26,43,44] This enzyme, however, may very likely be derived from the surrounding connective tissues rather than from the serum. Aminotripeptidase[58] and beta glucuronidase[20] have both been demonstrated in pathological human fluids and are probably derived from leukocytes rather than from the serum.

The beta-1 metal-binding protein, siderophilin or transferrin, as well as the copper-containing protein, ceruloplasmin, are both present in human post mortem synovial fluids.[52,53]

Other active glycoproteins in bovine synovial fluids are the thyroxine-binding protein[31] and the hemoglobin-binding protein, haptoglobin.[25,27]

The absence of fibrinogen from normal synovial fluid has already been noted. Normal bovine synovial fluid is free of all of the recognized factors in the blood clotting system. Thus there is no demonstrable fibrinogen, prothrombin, thrombin, antithrombin, Factor VII, accelerator globulin, or thromboplastin activity.[8]

Mucoprotein Complex

It is characteristic of synovial fluid to yield upon acidification a "mucin cloth." This is an artifact and is a complex of positively charged proteins and negatively charged hyaluronic acid.[40] It has been given considerable attention since its gross appearance seems to reflect the clinical state of the joint.[44,46] The proteins associated with the mucin clot have been studied.[39] Although an artifact and therefore of no real physiological value, the formation of this clot does introduce the question of the possible existence of mucoprotein complexes in synovial fluid under normal conditions.[2,5]

Current evidence, however, for the existence of such a hyaluronic acid containing mucoprotein in synovial fluid leaves much to be desired. The data are in a large measure dependent on the method of preparation. Ultra-filtration consistently yields a mucoprotein preparation containing 25 to 30 per cent of protein.[34] When the complex is separated at a pH of 7, the proteins are mainly alpha globulins.[10] A mucoprotein complex containing 30 per cent of protein is also obtained by an electrophoretic separation at a pH of 7.[32] Electrophoresis-convection, however, yields a product containing less than 10 per cent of protein.[48] The amount of protein in the complex also depends upon the raw material used.[7] Precipitation with acetone of an hyaluronic acid-containing mucoprotein from umbilical cord yields a product containing approximately 10 per cent protein; from ox synovial fluid, 13 per cent; and from cocks comb, 21 per cent.

Physical Properties and Mucoprotein Complex

Viscosity, the characteristic property of synovial fluid, is caused mainly by the presence of the hyaluronic acid. Degradation of this mucopolysaccharide by the enzyme, hyaluronidase, reduces the viscosity to practically that of water.[56] Because of its large molecular weight and the extent of hydration, hyaluronic acid produces an extremely viscous solution even at low concentrations.[35,56] The measurement of the viscosity of synovial fluid is, however, also a function of the rate of shear. At low rates of shear, the viscosity is considerably greater than at higher ones. This anomaly which is referred to as non-Newtonian viscosity[5,34,56] gives to synovial fluid its unusual lubricating properties and its ability to withstand high pressure loads at low rates of motion. Ogston and Stanier explain non-Newtonian viscosity on the basis of a meshwork of interpenetrating particles of the hyaluronic acid-protein complex.[35]

If the phenomenon of non-Newtonian viscosity is dependent upon such a mucoprotein rather than upon hyaluronic acid itself, then proteolytic digestion should profoundly affect the anomalous viscosity. Although trypsin reduces the relative viscosity of ox synovial fluid mucoprotein by only 15 per cent,[7,33,47] papain lowers the viscosity by 36 per cent. It has been claimed that papain abolishes the non-Newtonian viscosity of human synovial fluid and of a hyaluronic acid mucoprotein extracted from umbilical cord.[4,5] This enzymatic degradation, however, is often complicated by the effect of other substances which were included in the experiments to activate the papain. The effect of proteolysis on viscosity, therefore, is unclear at the present time.[1,33]

A Summation

It is premature to define exactly the role of the soluble proteins in synovial fluid and ground substance. However, it should be apparent that the serum proteins are not just passively present. Surely some of the biologically active proteins, such as the thyroxine-binding protein, are also functional in the synovial fluid. The presence of the carbohydrate-rich alpha globulins may be a factor in non-Newtonian viscosity. The capillary membranes are completely impermeable to certain proteins whose presence could be damaging to the joint, as in the case of the blood clotting factors.

The normal processes of capillary permeability with respect to proteins still require considerable study. Some authors are tempted to compare the capillary membrane with a "sieve" which freely allows the passage of proteins below a given range of molecular weights and which increasingly restrains those of larger molecular weights. By this simple analogy one can explain the high proportion of albumin (MW

69,000) and of orosomucoid (MW 41,000) in synovial fluid while alpha 2 macroglobulin (MW 840,000) and fibrinogen (MW 341,000) are either greatly reduced or entirely absent. However, on this basis alone it is not so simple to understand the presence of ceruloplasmin (MW 151,000), siderophilin (MW 90,000), and haptoglobin (MW 85,000 for the monomer) while prothrombin (MW 62,700) is excluded. It would seem more realistic to say that capillary permeability to proteins is not dependent upon molecular weight alone but may also involve the parameters of shape and charge as well.

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Hypnosis

The current issue of *The Grace Hospital Bulletin* contains an article by Sander J. Breiner, M.D., on "Hypnosis, Its Value and Dangers." Dr. Breiner, consultant in psychiatry to Grace Hospital and a member of the department of psychiatry of Wayne State University, said he did not believe that hypnosis has lasting value because it is fundamentally "a denial of an individual's selfhood."

Dr. Breiner agrees with majority psychiatric opinion that a more satisfactory way of dealing with emotional problems is for the patient to re-experience these problems and their causes consciously, so they can be sorted out. It can also be used as an alternative to questionable medications, where anesthesia might be dangerous to the patient. Dr. Breiner lists six reasons why hypnosis should not be used in anesthesia.

Tularemia

A Case in Michigan and Miscellaneous Aspects

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TULAREMIA is a disease rather rare in Michigan. The first two cases were reported in 1943 with 79 cases being recorded in the subsequent 13 years. Contact with rabbits, beavers and muskrats (in that order) is shown by the files of the Michigan Department of Health to be the most common source of human infection. Up to 1958, there had been no reported case of tularemia acquired from the state's foxes, and in view of the large number of fox hunters, both pedestrian and equestrian, this report may be of some interest. The only case in Michigan similar to that reported here occurred in 1956; an 11-year-old boy acquired the ulceroglandular form of the disease (right index finger and right axillary nodes) from his dog which had recently caught and devoured a rabbit.[1]

Report of Case

On April 21, 1957, W.R.M., a resident of Clark Lake, was pursuing his hobby of digging foxes from their dens for bounty, when he was bitten on the right index finger through a thick leather glove by a fox pup. It was one of five such pups which had been feeding in the den on six rabbits and a barn rat, all dead and in a state of decay. He captured the pups and gave them to neighbor children. Three days later, the finger became red, swollen and throbbed with pain, and the laceration emitted thick, yellow pus. The following day, he had shooting pains up the right arm, and on the fifth day he felt warm and found his own oral temperature to be 103°. Soon he felt a pronounced malaise and weakness and had occasional shaking chills. On the seventh day after the bite, he noted a large painful swelling in his right axilla. He had severe occipital headaches, worse in the mornings, not relieved by salicylates, and a painful, stiff neck. All the above symptoms and signs persisted until his admission to Ann Arbor Veterans Administration Hospital on May 13, 1957. The patient visited his local, non-medical practitioner several times between the onset of symptoms and his hospital admission, and received several antibiotics and sulfonamide preparations of unknown type for his "flu." About one week prior to admission, the patient noticed a soreness under his left rib margin which progressed to a severe ache without pleuritic quality, made worse by inspiration and better by several hours of recumbency. He had lost 16 pounds in the three weeks prior to admission. The patient stated he drank only pasteurized milk and avoided cats.

Physical examination revealed a well-developed but asthenic white man with an oral temperature of 102°, alert and cooperative. The right index finger lesion was superficially healed but with redness and swelling beneath the scar indicating a small abscess. A firm, exquisitely tender node (3 by 4 by 4 cm.) was palpable in the right axillary vault without overlying erythema, but no epitrochlear or other adenopathy was found. There was tenderness to deep palpation, increased with inspiration, in the left upper quadrant of the abdomen but without palpable mass. The lung fields were without findings. There were no signs of increased intracranial pressure or meningeal irritation.

On admission white blood count was 17,000 with 24 per cent segments, 70 per cent lymphocytes, 2 per cent eosinophils and 2 per cent mononuclear cells. Hemoglobin was 15.6 gm. per cent, ESR 40 mm/hr. Two days after treatment was begun WBC was 12,000 with a more normal differential. Chest radiograph and urine revealed no abnormalities. Routine febrile agglutinin titers (typhoid O and H, paratyphoid A and B, brucella and proteous OX-19) were not elevated either on admission or subsequently. A Pasteurella tularensis agglutination titer drawn on May 14 was 1:640, on May 17 was 1:1280, and on May 21, May 28, and June 25 was 1:2560. We were unable to obtain Foshay's antigen for intradermal testing. Culture of a small bead of pus from the finger lesion revealed only coagulase negative staphylococcus albus. Stool and blood cultures were negative for P. tularensis.

The patient was placed at bed rest and given one gram of streptomycin intramuscularly every 12 hours for two weeks. The large dose and long course were thought advisable because of the firm entrenchment of the organism before specific therapy was begun. The temperature returned to normal on the second day, symptoms concomitantly disappeared, and the finger healed. The axillary node regressed slowly in size being 1x2x2 cm. and still tender on May 29, and 1x1x½ cm. and non-tender on July 3. When last queried on July 14, 1957, the patient was asymptomatic except for some residual fatigue.

The Michigan Department of Health and the Conservation Department jointly began the roundup of fox pups distributed to neighborhood children; a conservation officer and the author visited the den excavation where the patient had buried the dead rat and rabbits under a few inches of soil. The latter animals were not found, presumably carried away by other foxes in the ensuing four weeks. The pups were recovered and held until agglutination and bacteriological

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studies could be done. No. P. tularensis organisms could be cultured from the animals mouths or blood, and no treatment was given them. The titers were as follows:

	5/18/57	6/3/57
Fox No. 1	1:40	neg.
Fox No. 2	1:40	neg.
Fox No. 3	1:160	1:40
Fox No. 4	1:320	1:80
Fox No. 5	?	neg.

As noticed, the titers were low and the rise transient. None of the animals had clinical signs of infection. This is compatible with reports of canine tularemia in the literature.[1-4]

The patient reported having seen several sick and apparently dying animals near his home in the spring of 1957. Both the patient and the Michigan Department of Health personnel believe distemper is the disease most likely responsible; however, a tularemia epizootic in the area at that time has not been ruled out.

History of Tularemia

The first description of a febrile disease contracted from rabbits was made in 1837 by Homma Soken of Japan.[5] He called the disease yato-byo or hare meat poisoning. It had been recognized in that country since 1818 and was manifested by chills, fever and glandular swellings from one to dozens of days after eating wild hares. After a long illness, affected nodes would drain and the patient would eventually recover. Yato-byo is now known as Ohara's disease and has recently been shown to be tularemia. To date, unlike tularemia in the United States, no deaths from the Japanese form of the disease have been reported.[6]

Tularemia was first studied in the United States by McCoy in 1911 as a plague-like disease of rodents in Tulare County, California (hence the name).[7] The next year, McCoy and Chapin reported Bacterium tularense to be the cause of this disease.[8] The first known human case of tularemia in the United States was described by Pearse in 1911, also in the west.[9] It was called deer fly fever by the author because of its association with an ulcerated bite of Chrysops discalis. Since wide recognition of tularemia in the 1930's, epidemics and epizootics have been reported from about the globe and have been especially devastating in central Europe and Russia.

Morphology

Pasteurella tularensis has been shown by Hesselbrock and Foshay (after a systematic study of 42 strains from this and other countries) to be a nonmotile, non-encapsulated, gram-negative rod with a wide but constant range of pleomorphism. Its size ranges from long rods to discrete ovoid units as small as 110 mu. Such small units produce tularemia in mice and cultures from the mice again showed the full gamut of pleomorphism.[10]

Cultivation

Ransmeier and Stekol confirmed the obligate cystine and cysteine requirement of P. tularensis and stated that of other sulfur containing compounds tried in serum infusion agar only thioglycollic acid and glutathione would promote growth.[11] Tamura and Gibbey confirmed the utilization of glutathione but showed that when all cystine was excluded, growth could neither be initiated nor sustained by thioglycollate.[12] Either cysteine or cystine is indispensable.[26]

On gelatinized yolk of hens' eggs of McCoy and Chapin, or on glucose-rabbit-blood-cystine agar of Francis (semisolid media) P. tularensis forms minute, transparent, droplike colonies from which microscopic identification or subculture can easily be performed. Media inoculated with infected tissue may show discrete growth in from two to seven days, but in subcultures confluent growth appears in 24 to 48 hours.[26]

Epidemiology

Humans contract tularemia from a number of hosts. In 1940, Foshay studied 600 new cases from the entire United States and found them due to the following: 519 rabbits, 10 squirrels, six tick bites, five cat bites and scratches, three chickens, two quail, and one each from opossum, deer fly bite, pheasant, grouse, skunk, hunting coat, dressing a primary lesion, lab work, rabbit skins, and 46 unspecified.[13] Since that time the list of hosts has considerably widened to include over 75 species. The cottontail rabbit (Sylvilagus floridanus) accounts for over 70 per cent of all cases of tularemia. Jack rabbits and snowshoe rabbits (Lepus spp.) infect man next most commonly.[14] Tularemia did not appear in Massachusetts until the importation of wild rabbits from the midwest and their release in the tick infested areas of that state. From 1938 to 1948, there were 14 cases in Massachusetts, 70 per cent from tick bites, 14 per cent from rabbit contact, 7 per cent dog contact and 7 per cent unknown.[15] Also reported as hosts of tularemia and sources of human infection have been the coyote (Canis latrans lestes) in New Mexico,[17] porcupine (genus Erethizon),[18] and the gray fox (Urocyon cinereoargenteus)[19] in the western and west central United States.

Francis was able to infect (by feeding on contaminated carcasses) four silver foxes, four red foxes, three coyote pups and four dogs with P. tularensis. Most infections were mild or inapparent and some were

detected only by use of blood agglutinin titers.[3] In 1956, Stagg et al exposed (subcutaneous injection, feeding, and aerosol) black tailed jack rabbits (Lepus californicus deserticola), antelope ground squirrels (Citelus leucurus leucurus), several types of rats, mice, guinea pigs and three coyotes to P. tularensis. There was a failure to infect 20 out of 22 rodents with contaminated food, but all rabbits and other rodents actually infected by any method died in three to five days, that is, before antibody titers could be demonstrated. The three coyotes who were aerosol exposed contracted the disease (agglutinin titers of 1:20 to 1:640) but demonstrated little or no sign of clinical infection and all survived.[2]

Water-bourne infection has been prevalent in the United States and in Russia. In 1939 and 1940, there was an epizootic of tularemia among beavers (Castor canadensis) in Wyoming and Montana. Pasteurella tularensis was recovered from carcasses of beavers dead of tularemia, and from the water and mud of streams where they lived. Until 1951, seven human cases had been reported in Montana, Wyoming, and Idaho from drinking this contaminated water. In Russia there was a serious epidemic of tularemia during World War II (14,000 cases in Rostov alone in the month of January, 1942) believed contracted from water contaminated with the carcasses and excreta of tularemic water rats (Arvicola amphibius). Virulent organisms may be present in water and mud samples in any season of the year and may persist for at least 16 months. Such persistence of contamination is likely due to the organisms' actual multiplication in mud; the mud in question has been shown to have the necessary nutrients. The concentration of chlorine ordinarily used in purification plants is adequate to make potable a P. tularensis contaminated water supply.[16]

Arthropod transmission of tularemia was recognized early; indeed for some time tularemia was known as deer fly fever. Many sporadic cases and large epidemics have been attributed to the biting deer fly (Chrysops discalis) in the western United States[9,20] Bites from the lone-star tick (Amblyomma americanum) and the American dog tick (Dermacentor variabilis) are credited with causing 63 per cent of the human tularemia in Arkansas. Wild and tame dogs are implicated as the chief native reservoir, and gray foxes and coyotes of the area are suspected minority members of this reservoir.[4,21] In one study 68 to 74 per cent of lone-star ticks feeding on tularemic rabbits became infected.[22] Studies revealing the percentage of animals infected by an itinerant tularemic tick have to my knowledge not been carried out. Other areas have reported arthropod vectors not yet believed important in the United States; Sweden (mosquito, Aedes cinereus), central Asia (tabanid flies), and Turkey (tick, Ornithodoros Lahorensis)[23] are examples in point.

Laboratory infections remain a serious problem; it is felt that 100 per cent of unvaccinated persons working daily with Pasteurella tularensis will acquire tularemia. After protection with Foshay vaccine, this incidence can be lowered to 30 per cent.[24] Infection of persons through the unbroken skin has been accomplished with a very small number of organisms.[25]

Diagnosis

Diagnosis is based on the recognition of the typical history and clinical picture (recent texts), and it is the feeling of clinical workers that most cases can be confidently diagnosed by these alone. Laboratory diagnosis is more specific; it comprises intradermal and agglutination testing. The intradermal test utilizes a specially prepared suspension of killed P. tularensis (Foshay's antigen) to give a tuberculin type positive reaction. This reaction was obtained during the first week of illness in 75 per cent of cases,[23] and was positive thereafter in 425 out of 428 cases in separate series.[13] There are occasional, fractional cross dermoallergic responses with brucellin. The specificity of the intradermal test for diagnosis however, has been repeatedly reaffirmed.[23]

The microscopic agglutination test "approximates perfection" in the diagnosis of Pasteurella tularensis infection. In no single case among thousands studied did agglutination fail to demonstrate antibodies unless the patient died after less than two weeks of illness.[13] Earliest agglutination occurs after the first ten days of clinical tularemia. A microscopic, bed-side, slide technique is useful if the titer is above 1:20. There is low titer cross agglutination with brucellosis antigen.[13,23] Normally both dermal sensitivity and agglutination persist for a lifetime and therefore are not proof of active tularemia in the absence of characteristic symptoms and signs. A rising titer is almost invariably conclusive proof of active tularemic infection. Absolute proof is not possible, however, without cultural isolation and identification of the organism. Cultures should be made on thioglycollate blood agar, or on above-named media; guinea pigs should be inoculated with specimens of blood, pleural effusions, primary lesion exudates or sputa from living patients, or with heart blood taken at autopsy.[26]

Treatment

Before specific antibiotics were available, hyperimmune serum developed by Foshay was used with good results in the treatment of tularemia, but was not without its dangerous immunological side reactions. Mercurials and "dyes" had been used without success prior to this time.[13] There are reports of some success with Aureomycin,[23] Terramycin,[27] and Chloromycetin,[28] and a failure with a combination of Aureomycin, sulfa drugs, and penicillin.[27] Today streptomycin approximates the ideal therapeutic agent for tularemia.[23,29] One-half gram per day for six days has been shown effective even in tularemic pneumonia if there is early initiation of therapy.[26] This drug is so rapidly bacteriocidal that in the presence of large exudates treatment often provokes analogues of the Herxheimer reaction, many of which are misunderstood or misinterpreted.[23]

Summary and Conclusion

A typical case of ulceroglandular tularemia has been reported from the south central lower peninsula of Michigan. The disease was probably passed from dead rodents via the teeth of their fox predators to the human victim, the foxes becoming infected with the disease only incidentally. Compilation of interesting and useful points in the literature rather than a comprehensive review thereof has been attempted.

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The Psychiatrist and Morality

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THE THEME of this article is so vast and branches out in so many directions that only a few sectors of prominent importance will be considered. The selection of the present topic for this panel discussion denotes an awareness that, as far as moral values are concerned, the position of the psychiatrist differs, or is considered different, from the position generally taken by the physician. The situation of the psychiatrist is a special one for two reasons. One reason is that the psychiatrist deals with the mind and its manifold strivings and tendencies, among which moral judgments and moral imperatives and the defenses against these, play a very important role. The second reason is that public opinion, based mainly on misconceptions, attributes to the psychiatrist the role of an arbitor in matters of morality, a role which he has hardly any legitimate justification to take, but which some psychiatrists find difficult to resist.

The main task in this short presentation is to correct some of the misconceptions which are responsible for casting the psychiatrist in the role of a moral adviser. Many, no doubt, will be disappointed if I take the psychiatrist down from this pedestal. But he has no right to be up there, and it will save him and those who place him there from greater disappointments if we take him down gently and for good reasons before a more explosive negative reaction of deep disillusionment exposes him to more violent mistreatment.

We all have a very deepseated need for absolutes. We cling to these illusions and show the greatest resistance if we are forced by facts and insights to abandon them. This is true even in areas in which we are relatively uninvolved emotionally as in the exact sciences; a fact which always has stood in the way of scientific progress and still does. However, if our feelings, and particularly, if unconscious infantile ideas and strivings are involved in the concept formation of an absolute, we put up an intense resistance against its abolition. It is hard enough for us to realize that, with the progress of scientific knowledge, our material world which is given to us by the immediate sense data, is dissolved into constant dynamic change and is subject to everpresent relativity. But this decomposition of permanence, stability and absoluteness does not stop at the material world. It has gradually corroded our spiritual values, as well, and has created considerable confusion in our moral system. But moral values are highly cherished by all of us, and we seek desparately to re-establish them because we have a basic psychological need for them, upon which I shall comment later. We want to have them pronounced and accredited as absolutes by persons of authority. The first and most basic values and moral directives, the do's and don'ts which control our behavior, were pronounced, after all, in our childhood by the highest authorities, namely, our parents. Since the child is completely dependent on his parents during the early years of his life, and is deeply attached to them as his first and most important love objects, the parents' commands have for the child the quality and effectiveness of absolutes. Thus, in our childhood, the need for absolutes is really satisfied. Throughout our lives, we crave for a continuation of this satisfaction.

The position of the parental authority in moral and other matters was continued by the social institutions of authoritarian governments and the church until the beginning of the great scientific and industrial revolution, in the midst of which we find ourselves today. Totalitarian governments still try to play this role. Democratic societies have lost this controlling order, and the waning power of religion in our time has left a multitude of individuals stranded in considerable disorientation, as far as moral values are concerned. It is in this predicament that many persons look to the psychiatrist as they did in former times to their religious advisers with the erroneous idea that his knowledge of the workings of the mind provides him with the necessary information for a psychologically well-rounded "philosophy of life" and a coherent value system. But the scientifically oriented psychiatrist is in no position to provide for either of these. No science, and this includes dynamic psychiatry, can provide a philosophy of life or a value system, since

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imperatives cannot be deduced logically from affirmative propositions. "For there is nothing either good or bad, but thinking makes it so," to quote Hamlet. Thus, the recognition of a fact does not tell us what we ought to do or how we are to use the knowledge of this fact. This statement is one which most people have difficulty in accepting. We have less resistance to accept this in matters of physics and technology. We can easily understand that the discovery of the enormous energy release through atomic fission or fusion does not tell us how to use this discovery. It does not provide any moral directive for our action with regard to its use. The demonstration of the destructiveness tells us of the consequences when we use it in an aggressive way, but that is all. The motivations for the kind of usage lie outside the scientific fact of its discovery.

The same is true in the field of human psychology. We only get more easily confused about the issue and are less inclined to separate science and moral value systems, because their interaction in the field of emotions is more intricate. Some of these interrelationships I shall take up presently and try to clarify them.

One of the most important contributions, which Freud made in the field of psychology, was the study of the origin, the ontogenesis of morality. On the basis of his clinical studies with neurotics, he postulated that moral values are not inborn—though the capacity and inclination to acquire them seems to belong to the constitutional givens of the human race. Our moral imperatives, our conscience, our guilt feelings if we transgress these imperatives, and the satisfaction which we derive from obeying the demands of our conscience, are the result of a complicated developmental process. The incorporation of the first love objects and their ethical demands, the transformation of drive goals, the neutralization of drive energies and instinctual vicissitudes, like the turning of aggression against the self, play the most important rôles in the genesis of morality. One might assume that the inclination to develop contrasting conceptual sets of "good" and "bad" is inborn. But what is not inborn is the content of what we consider good or bad. These moral evaluations are acquired during our infantile and later development, first from our parents, then from other authoritarian figures like teachers, group leaders and the moral standards of society in general. How little the contents of good and bad are inborn absolutes is best demonstrated by the grandiose change of values which occurs in persons under the influence of a love relationship or due to the pressure of an authoritarian system of government. The value changes in the population in Germany under Hitler are a striking example.

This insight into the ontogenesis of our inner moral system led to a widespread misconception which, however, is supported by a cultural trend of our time. Even Freud, at the beginning of his psychological discoveries, participated in this misconception. But he soon realized it as such and warned against it. It originates from the recognition that neurosis is the result of the repression of forbidden drive goals and desires. The erroneous conclusion was that freedom from repression will prevent neuroses. The application of this faulty idea had a particularly damaging effect in the field of education, for it led to overpermissiveness and therefore to an under-development of instinctual control. The result was a considerable ego-weakness in many individuals brought up under the guidance of this principle. The faulty idea that instinctual freedom guarantees mental health for which the psychiatrist was the alleged proponent permeated vast segments of the population, and we psychiatrists often try in vain to stress the importance of instinctual control for the ego development in children. Anna Freud's dictum, "Frustration is indispensable for personality development," cannot be emphasized strongly enough.

Many people assume that the psychiatrist has to be the devil's advocate and fight for the freedom of instinctual expression. However, the deeper insight into the dynamics of the forces of morality and their important influence on a person's ego feelings and on his behavior impels the psychiatrist to express himself in favor of guiding values and moral imperatives. But he cannot provide any definite contents for these from his scientific knowledge, since—I repeat this—imperatives cannot be deduced from factual propositions. This is particularly unfortunate in our time, since we live in a cultural period of crumbling values. The psychiatrist cannot replace the value system which religion and the old social order and hierarchy furnished in former centuries. On the other hand, this does not mean that the psychiatrist cannot and does not have a personal value system. His task demands that he be a person of high moral integrity. But as you well known, he is not supposed to impose his moral evaluation and his philosophy of life on his patients. The therapeutic task demands that he keep his personal evaluation out of the treatment situation, and, difficult as it may be in certain cases, a well-trained and well-balanced psychiatrist succeeds in general in accomplishing this separation. The genetic

understanding which his training and technique enable him to achieve helps him greatly in his task. It is exactly this understanding, however, that provides the material for another misconception. The French have a proverb: "Tout comprendre c'est tout pardonner," (to understand everything means to forgive everything). The public often demands from the psychiatrist that, since he is expected to understand professionally, he should refrain from any moral judgment also outside the therapeutic situation. How often am I told, when I consider the action of someone condemnable, "But *you* should understand!" which means, "You should replace judgment with understanding." It is my opinion that the objective, nonjudging attitude should be reserved for the therapeutic situation, but outside of it the psychiatrist is entitled to moral opinions. Incidentally, it is a general trend of our time to replace moral judgment with understanding, an attitude which leads to the denial of the category "bad" altogether; this denial of morally negative evaluations has a paralyzing influence in the fields of child-rearing, education, handling of juvenile delinquency and the penal code. These are but a few of the areas in which modern psychiatry creates confusion and in which the psychiatrist, in turn, is the victim of confusion. I should like to add a few words to clarify the position in matters of moral values which the psychiatrist has to take in the therapeutic situation with his patients. The attitude of any therapist, whether he is a physician or not, is determined by his therapeutic goal. His concern has to be the mental health of the patient, just as the physical health is the only concern of the physician. But the physician who deals with physical illness, let us say—the surgeon, can relatively easily detach his therapeutic action from the moral evaluation of a patient. He will have little difficulty in using the same surgical technique for the removal of an appendix, whether the patient is a criminal or a personality whom he considers highly ethical. It is less easy for the psychiatrist not to let his moral evaluation of his patient enter—and disturb—his therapeutic action. Some psychiatrists believe that they best follow Sigmund Freud's example when he made it a condition for therapy that the patient be a worthy person; this prevented him from letting his value judgment interfere with the therapeutic handling. Others are able to be more detached from moral evaluations, or are more optimistic that therapy may improve the moral conduct of the patient.

This leads me to the last topic in this brief discussion. We emphasized the necessity of the acknowledgment of morality as an important dynamic force in our mind. We stressed that the genetic exploration in modern psychotherapy led to a recognition of the origin of morality. The question remains: Can, and to what extent does, modern psychotherapy improve the morality of a patient? Unfortunately, we have to recognize as erroneous the Socratic concept that condemnable behavior and unethical conduct are due to error and are righted by recognition of the truth and insight into oneself. The precept "know thyself," leads only partly and within considerable limits to ethical improvement. Psychology, in this respect also, is "a stick with two ends," as Dostoievsky puts it in the famous speech of the defense attorney in the Brothers Karamazov. In certain cases, when the neurotic overfunction of the superego is diminished, the behavior of the patient after treatment is less controlled by restrictions, particularly, if the group fails to provide general ethical regulations for conduct, as is so often the case in our present-day cultural situation.

Dynamic psychotherapy, however, does contribute something positive to the ethical part of the patient's personality. The increased self-awareness which results from treatment leads to an improvement of the moral organization within him and to a greater capacity to realize his moral potentialities. In favorable cases, a decrease of anxiety enables the person to stand up for his moral convictions and the increase of ego strength can provide him with the ability to live according to his ethical principles more than before. However, this is ouly a minor contribution to the improvement of morality, for which there seems to be an ever-increasing need in our present western cultural world.

The question remains as to what the psychiatrist can contribute to the communities' morality besides his work with his individual patients. I hope I have demonstrated that he cannot take the role of an arbitor in moral values nor as an issuer of a moral code. His influence on the morality of the community is limited; however, it is still an influence. Since the public looks up to and respects the psychiatrist to a considerable and increasing degree, his personal behavior is often taken as a model. In this way, his evaluation and his moral code—aside from his professional ethics—are becoming more and more important to the public. Whatever the origin of his personal moral code is, if it is a moral code of decent behavior which truly guides his conduct, the psychiatrist's influence on the community in moral matters will be significant—and beneficial.

A Safe Local Anesthetic for Bronchoscopy

Pyribenzamine Anesthetic Solution

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TOXIC reactions associated with the use of topical anesthetics, particularly in bronchoscopy and bronchospirometry, are to be expected and should be avoided. Not infrequently, patients are encountered who manifest a dangerous sensitivity to local anesthetics. At times, it even becomes necessary to perform instrumentation under general anesthesia because of the hazards involved in peroral endoscopy.

The discovery that antihistamines had local anesthetic properties[1,2] led to the use of Pyribenzamine as a topical anesthetic. During the past few years, clinical evidence has been accumulating which indicated that tripelenamine hydrochloride (Pyribenzamine) anesthetic solution apparently has certain definite advantages over cocaine and other commonly used topical anesthetic agents.

Writing on the solution, Stephen et al state,[3] "The therapeutic-toxicity ratio . . . is less than that of procaine. This applied both to local and systemic manifestations."

Moseley[4] used Pyribenzamine solution for gastroscopic examination with entirely satisfactory results in approximately 200 trials. He noted, "The anesthetic effects lasted sufficiently long in all instances to permit full and complete examination of the stomach and removal of the gastroscope without pharyngeal discomfort or excessive gagging. The use of tripelennamine hydrochloride (Pyribenzamine) has been as effective as any of the previously employed topical anesthetics used at this clinic in conjunction with gastroscopic examination." Reynolds, Kahn and Levy[5] also commented on the duration of Pyribenzamine anesthesia, noting, "The effect . . . persists approximately an hour, sufficient time to make the examination in a leisurely manner."

The gag reflex was inhibited and complete anesthesia, lasting almost an hour, occurred in 10 to 15 minutes in all but one patient. No undesirable side effects were reported in any of these patients.

Using a 2 per cent solution of Pyribenzamine prior to gastroscopy in 39 patients, Necheles[6] obtained adequate anesthesia in 26.

In cytologic studies of the upper gastrointestinal tract, Rubin et al[7] used a 15-minute gargle of a 1 per cent Pyribenzamine solution as a topical anesthetic to decrease the discomfort usually accompanying the passage of the abrasive balloon.

Ruzicka and Nicholson,[8] in an attempt to reduce the incidence of reactions in the genitourinary area where "the use of topical anesthesia may be particularly hazardous when applied to inflamed mucous membranes or recently traumatized areas," found this antihistaminic agent provides "good analgesia and to date no untoward reactions."

Despite its effectiveness as a topical anesthetic, we concur with Kleitsch[9] that in bronchoscopy Pyribenzamine anesthetic solution is more useful in combination with more rapidly acting topical anesthetics rather than alone, since it is a little slow in onset of action. However, there is an exception. Pyribenzamine anesthetic solution alone is better than the combination in patients sensitive to cocaine or pontocaine, since it is safer to use and the anesthetic effect is extremely rapid.

Method and Procedure of Study

A commercially prepared stock solution of Pyribenzamine (2 per cent) was used as a topical spray and intratracheal drip for anesthesia of the upper and lower respiratory tract mucous membrane. The anesthetic solution was used in 42 cases (36 bronchoscopies, 6 bronchospirometries). An average of 15 cc. of solution was administered—2 to 4 cc. as a spray on the tongue, pharynx and cords, with the remainder by intratracheal drip.

Preoperative medication consisted of Nembutal, postural drainage 15 minutes at bedtime and repeated in

Pyribenzamine® (tripelennamine hydrochloride) Ciba, Ciba Pharmaceutical Products, Inc., Summit, N. J.

the morning. Carbital gr iii was administered orally one hour before bronchoscopy, atropine and codiene i.m. on call to the operating room.

Results and Observations

We noted a satisfactory anesthesia of tongue and pharynx within five to ten minutes. Tracheal and bronchial anesthesia required an additional five to ten minutes. Duration of anesthesia was sufficiently long to permit all diagnostic bronchoscopic procedures.

Of the 42 cases, 20 showed an excellent response to Pyribenzamine anesthetic solution with anesthesia lasting as long as 45 minutes, 10 had a good response, six fair, and only six were poor or unsatisfactory.

In an early part of the study, we noticed the solution appeared to produce an increase in mucus. We, therefore, saw to it that moist patients, particularly, were given adequate postural drainage with an increased dosage of Atropine.

Although it was not a major complaint, some patients mentioned an initial, bitter taste which wore off as the anesthesia took effect. This action may well serve as an indicator of anesthesia. We observed no side effects or after-effects in our series of patients. There was no sedation or jitteriness. One patient, who was resprayed after some delay, received almost 22 cc. (440 mgm.) of solution, 15 cc. (300 mgm.) of which was by intratracheal drip, yet displayed no signs of toxicity or untoward symptoms of any kind.

We observed an interesting phenomenon with Pyribenzamine solution in individuals sensitive to cocaine. Apparently, individuals unable to take standard anesthetics (cocaine, Pontocaine, et cetera) responded more rapidly to Pyribenzamine anesthetic solution than non-sensitive patients. In such cases, anesthesia was extremely rapid and excellent. It is our belief that these people are hypersensitive to all agents. The difference in onset of action may possibly be due to a greater sensitivity in the proprioceptive cells of these individuals which would tend to give an increased receptor response. In one of these hypersensitive patients, complete bronchial anesthesia was accomplished in five minutes.

In 100 cases, we used a combination of Pyribenzamine and tetracaine (Pontocaine) in the ratio of three parts of a solution of Pyribenzamine 2 per cent to one part tetracaine 2 per cent.

An average of 10 cc. of this solution was administered, 2 to 3 cc. as a spray and the remainder as an intratracheal drip.

Excellent anesthesia was noted in all patients. Anesthesia was as rapid as in patients who were anesthetized with tetracaine 2 per cent. The duration of anesthesia using the combination solution is more prolonged than that seen with any other topical anesthetic. No side effects were noted, nor were any drug reactions encountered.

Conclusions

It is our considered opinion that Pyribenzamine anesthetic solution is an excellent topical anesthetic agent, particularly in patients who are known to be sensitive to cocaine or Pontocaine. In such patients, the anesthetic effect of the solution is extremely rapid. Because of its low toxicity, the solution is very safe to use in bronchoscopic procedures. There were no toxic effects whatsoever in any of the patients in our series.

In patients not sensitive to cocaine or other such commonly used topical anesthetic agents for bronchoscopy, the anesthetic effect appears slowly and usually requires 15 to 20 minutes for complete anesthesia. In such cases, a mixture of 75 per cent Pyribenzamine anesthetic solution 2 per cent and 25 per cent Pontocaine 2 per cent provides a potent, rapidly effective anesthetic solution which, because of its content of Pyribenzamine, reduces possible reaction to a minimum and provides prolonged anesthesia.

We believe such a combination is better than standard anesthetics (cocaine, Pontocaine, et cetera) for non-sensitive patients, since it provides greater safety with potent anesthetic effect.

As of this writing, we have used the combination in 240 additional cases and have found that Pyribenzamine anesthetic solution and Pontocaine mixture is better and safer than Pontocaine† used alone. We have observed no side reactions to the combination, nor have we had any drug reactions in these patients.

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†Pontocaine (tetracaine hydrochloride) Winthrop Stearns, Inc., New York, N. Y.

Effects of d-Triiodothyronine on Serum Cholesterol, Total Lipids, and Lipoproteins

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THE CURRENT status of the circulating blood lipids with respect to the problem of atherogenesis has received increased importance in the past decade. Certain of the lipid fractions, especially cholesterol, have shown close correlation with clinical coronary artery disease, and attempts have been in progress to modify these in animals and man by dietary alterations and additives of many kinds. These include polyunsaturated oils, beta sitosterols, nicotinic acid, triparanol, estrogens, reserpine, bile acids, neomycin, heparin, and thyroid analogues.[1,2,3,4] It is the latter with which this report deals; namely, the dextro isomer of triiodothyronine.

Materials and Methods

The series of patients chosen was selected from the Out-Patient Department clinics of the Wayne County General Hospital. Six had diabetes mellitus well controlled on diet, insulin and/or oral hypoglycemic agents. None of them had clinical evidence of atherosclerotic vascular disease. The seventh patient (L.R.) had sustained a myocardial infarction a year before admission to the study. The period of observation was sixteen weeks, by which time a plateau had been reached in lipid values in the subjects. Each patient served as his own control. Random dosages of d-triiodothyronine* from 0.5 mg. to 1.5 mg. daily were assigned to each patient.

Total lipids were determined by the method of Kunkel, Ahrens and Eisenmenger:[5] cholesterol was determined by the procedure of Zak,[6] and lipoprotein electrophoresis and quantitative determinations thereof were conducted by the method of Ressler, Springgate, and Kaufman.[7]

Discussion

Recent studies[8,9] with dextro thyroxine have shown that serum cholesterol levels can be depressed in athyreotic, hypothyroid and euthyroid individuals with various metabolic disturbances associated with hypercholesteremia. Oliver and Boyd,[10] however, present evidence that this effect is not uniformly predictable and escape occurs rapidly so that they do not recommend it for use as a cholesterol lowering agent. Nevertheless, it is known that these interesting and potentially beneficial, albeit transitory, effects are not necessarily accompanied by calorogenic side effects such as weight loss, palpitations, diaphoresis, and other signs of hypermetabolism. Corday[11] investigated the thyroid analogue, tetraiodothyroformic acid (T_4F) and found a striking reduction of serum of his series of 26 patients. He noted that the cholesterol levels without untoward effects in 38 per cent of his series of 26 patients. He noted that the BMR either fell during the period of observation or was insignificantly elevated. These results differed somewhat from those of Hoobler,[12] who used dextro thyroxine and noted a rise in the BMR and the occurrence of angina symptoms in some of his patients with increased dosage of the drug, sometimes necessitating discontinuance of it entirely.

Several investigators have demonstrated plasma lipid deviations from normal in patients with clinically manifest atherosclerotic diseases. Specifically, the total cholesterol is usually found to be elevated, although, according to Patterson,[13] there is little correlation between the degree of atherosclerosis and the serum cholesterol level except when it exceeds 300 mg. per cent. Sternberg[14] has suggested that the degree of elevation may not be the most important aspect of the problem. By lipoprotein electrophoresis, he has uncovered a "split beta" lipoprotein associated with normal total cholesterol levels in patients with coronary occlusive disease. This qualitative difference may help explain atherosclerotic disease associated with normal lipoprotein and cholesterol values.

Gofman[15] initially correlated elevations of the Sf 10-20 class of lipoproteins with proven myocardial infarction in a group of 104 patients, but he later expanded the spectrum to Sf 10-400. These frac-

From the Department of Medicine, Wayne County General Hospital, Eloise, Michigan.

*Kindly supplied by Smith Kline and French Pharmaceutical Company, Philadelphia, Pennsylvania.

tions correspond to the low density beta lipoproteins determined by electrophoretic methods which have also been correlated with coronary artery disease. Another group[16] has studied serum lipid fractions both in patients with angina pectoris and in those with clinically proven myocardial infarction. The patterns were found to differ significantly in that the former registered an elevation of the Sf 0-12 containing mostly cholesterol and the latter an elevation more strikingly of the Sf 12-400, mostly triglycerides. The significance of these findings is uncertain.

TABLE I.

Dosage	L.R. 0.5 mg	C.H. 1.0 mg	T.M. 1.0 mg	A.L. 1.0 mg	D.L. 1.5 mg	W.M. 1.0 mg	A.G. 1.5 mg	Average
Cholesterol								
Control	348	213	267	190	235	217	282	250
1 mo.	248	210	287	215	200	192	217	224
2 mo.	362	250	269	282	216	196	214	256
3 mo.	—	215	311	260	206	185	248	237
4 mo.	385	226	274	248	(302)	226	225	264
5 mo.	371	226	249	—	227	212	—	257
1 mo. after	431	270	258	261	256	227	288	284
Per Cent Lipoprotein								
Control	76	—	86	76	85	71	81	79
1 mo.	71.5	58.9	79.7	75	80.8	72	78	73.7
2 mo.	81.7	82	82.4	73.8	81.2	72.4	70.3	77.7
3 mo.	—	74.7	79.3	78.0	82.2	69.5	73.7	76.2
4 mo.	79.4	80.0	69.3	71.0	(88.1)	62.4	60.8	70.5
5 mo.	80.6	80.3	80.8	—	76.7	61.1	—	75.9
1 mo. after	79.6	78.6	80.9	73.8	86.1	—	67.0	77.6
Total Lipids								
Control	1097	701	782	581	793	566	718	748
1 mo.	641	590	773	549	638	518	521	604
2 mo.	809	452	593	557	585	493	494	569
3 mo.	—	573	624	561	589	435	521	550
4 mo.	1031	522	537	495	(1457)	492	477	592
5 mo.	804	618	569	—	588	452	—	605
1 mo. after	838	563	640	531	651	482	585	613

Stimulated by the fact that patients with idiopathic hypocholesteremia are particularly predisposed to premature coronary artery occlusive disease while others with idiopathic hyperlipemia (triglyceridemia) who have equally high or higher cholesterol levels may not suffer from the same prognosis with such regularity, we, as well as others, felt that more useful information could be gained from an analysis of the effects of d-triiodothyronine on the serum total lipids and lipoproteins as well as cholesterol. We were concernd with measuring total lipids because not only is the method convenient and reproducible, but factors other than cholesterol have begun to be implicated in vascular degenerative diseases. Brown [17] has incorporated I^{131} labeled triolein into measured fat meals and observed that patients with ischemic heart disease do not exhibit as rapid plasma clearing as normals. The turbidity is due chiefly to chylomicronemia (Sf greater than 400) and the lipid fraction involved is triglyceride. This "normal" post-prandial turbescence is one of the factors able to limit coronary flow and myocardial oxygen consumption in man. In fact, Albrink[18] and Man have reported a better correlation between fasting serum triglyceride concentrations than cholesterol levels with the incidence of coronary atherosclerosis. They implicate an error in triglyceride metabolism as the factor operative in this disease. Furthermore, it has been proposed that hyperlipemia may accelerate blood clotting and also retard fibrinolysis. It is known also that another class of lipids, the phospholipids, play an important role in blood coagulation as integral parts (phosphatides) of the platelet fraction.[19]

Our results show an initial depression of the total cholesterol in six of the patients which could be maintained for only a short time. The significant finding was a substantial sustained reduction in the total lipids in all cases and a reversal of the alpha$_1$/beta lipoprotein ratio in six. After the drug was discontinued, a prompt rebound above control values occurred in all fractions studied. The diet in all patients was fairly constant throughout the study, suggesting a drug induced depression of endogenous cholesterol synthesis to account for maintenance of constancy in the serum level. This was not unexpected according to the claim made by Keys[20] that serum cholesterol (Sf 0-12) is not significantly affected by dietary intake. Once the drug was removed, endogenous synthesis was restored and cholesterol values temporarily became elevated. Current workers have cast some doubt on this hypothesis,

however providing rather convincing evidence that dietary cholesterol has a significant effect on serum cholesterol in human beings.[21]

Most patients had an initial weight loss and one with known atherosclerotic heart disease (L.R.) suffered angina pectoris. In the latter case when the dosage was reduced, symptoms were alleviated, yet the effects of the drug still remained. No patient developed clinical hypermetabolism. In no cases was the dosage of insulin or oral hypoglycemic agents altered during study.

It is, perhaps, significant that similar results were reported by Parsons and Flinn[22] in their study of a larger group of patients with ischemic heart disease given nicotinic acid in large dosages. They noted a negligible fall in the total cholesterol, but a slight rise in the alpha$_1$ cholesterol and a greater fall in the beta causing a rise in the alpha$_1$/beta lipoprotein cholesterol ratio. They believe that cholesterol can migrate from one lipoprotein class to another, namely from beta (Sf 0-12) and alpha$_2$ (Sf 20-400) to alpha$_1$ and vice versa.

Strisower and co-workers[23] treated patients with xanthoma tendinosum with large dosages of dessicated thyroid (1-thyroxine) for prolonged periods and noted a prompt and sustained fall in the Sf 0-12 and Sf 12-20 low density lipoprotein concentrations. There was also a minimal fall in the HDL-1 and slight rise in the HDL-2 and HDL-3 fractions. These results are in accord with our findings of similar changes in some cases in the electrophoretic counterparts of these lipoproteins in patients treated with a thyroid analogue. No mention is made by these authors of metabolic studies except that adult males lost weight.

Whereas the total serum cholesterol in our patients did not change appreciably and the total lipids did fall, we postulate that a change occurred in the other lipid fractions. We infer from the cases showing a rise in the alpha$_1$/beta lipoprotein ratio that there occurred a fall in triglycerides and, possibly, a rise in phospholipids and esterified fatty acids. The former are chiefly concentrated in the low density beta and alpha$_2$ lipoprotein fraction and the latter with the alpha[1] or high density lipoproteins and serum albumin. The serum albumin was not measured by the method employed.

These results suggest that a shift in lipid patterns can be induced with some degree of constancy by d-triiodothyronine. Insofar as this may raise the alpha $_1$/beta lipoprotein ratio, the effects may have antiatherogenic implications.

Summary

1. A clinical study of the action of dextro-triiodothyronine on total serum lipids, lipoproteins, and cholesterol is presented.

2. In the dosages employed, there was a reduction of total lipids in all eight cases and a rise in the alpha$_1$/beta lipoprotein ratio in six. Effect on serum cholesterol was negligible. The greatest reductions occurred in patients receiving the largest dosages (1.5 mg.).

3. The therapeutic potentialities of these findings in the light of clinical atherosclerotic disease are discussed.

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Acute Histoplasmosis Treated with Amphotericin B

Report of a Case

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BENIGN form of histoplasmosis is quite common in certain endemic areas with a high prevalence in the mid-western United States. The spectrum of the disease varies from asymptomatic infection to disseminated fatal disease. Histoplasmosis is primarily a pulmonary infection caused by inhalation of a fungus from an exogenous source in nature. In some of the epidemics, the fungus has been isolated from the soil related to areas contaminated by pigeon and chicken excreta. There are no reported cases of transmission of the infection from animal to man or from man to man. Histoplasmosis can be classified into three groups: (1) asymptomatic infection associated with pulmonary calcifications and positive skin test; (2) acute infection associated with a febrile course, evidence of enlarged hilar nodes, disseminated infiltrates of nodular foci or cavitation; (3) fatal infection associated with systemic involvement. From the available evidence in the literature, nonfatal pulmonary histoplasmosis heals completely by fibrosis and calcification. Whether the organism is eradicated from the involved lesion and bacteriological cure is obtained is unknown. There are reports of reactivated histoplasmosis such as is seen in tuberculosis.

The disease may resemble tuberculosis and tuberculous hospitals have been the usual destiny of patients with acute, particularly cavitary histoplasmosis, misdiagnosed as tuberculosis. Furcolow[1] estimated that 1,200 cases now diagnosed as tuberculosis and being treated for that disease in sanatoria, in an endemic area, may have histoplasmosis instead of tuberculosis. Wier,[2] speaking of Fitzsimon's Hospital, says, "Each year, about 25 per cent of the patients sent to this hospital with erroneously diagnosed tuberculosis, have fungus disease of the lungs instead." In order to avoid such costly error as admitting a patient with no tuberculosis to an active tuberculous ward, the following diagnostic tests should be employed and evaluated.

The diagnosis of histoplasmosis can be established by culture, biopsy material, blood and bone marrow cultures, serology (colloidin agglutination and complement fixation) and skin test. The x-ray findings are not at all specific and may easily be confused with tuberculosis or show fine nodulation, diffuse fibrosis, cavitation, miliary disease or pneumonia.

Skin Hypersensitivity

A dilution of 0.1 ml. of antigen to correspond to 1:1000 dilution is injected intradermally. If negative, repeated in 1:100 dilution but rarely is 1:10 dilution indicated. The test is performed and interpreted exactly as the tuberculin test. The significance of the positive test in histoplasmosis is similar to the positive test in tuberculosis, namely past or present infection. A negative test does not rule out the disease. The fact that some patients who have a positive histoplasmosis skin test may at the same time react to coccidioidin and blastomycin does not diminish the value of the test. Further laboratory procedures can usually clarify any doubts in cases of cross reaction or multi-antigen response.

Complement Fixation Test

These antibodies usually occur in patients with severe chronic and disseminated disease. In questionable cases this test is of value in differential diagnosis particularly when tuberculosis is suspected. When these antibodies are transitory the disease has usually a good prognosis. Once a patient is suspected of having histoplasmosis, serologic studies should be performed periodically for detection of the complement fixing antibodies to the histoplasma fungus and for recording their persistance in positive reactors. The absolute level of serum antibody in a particular test is of little importance. However, comparison of a series of serums from a given patient is of diagnostic and prognostic value. The persistence of a positive serologic test indicates continued activity even though this may not be evident clinically. In differential diagnosis one should employ complement fixation and precipitation or agglutination test which may be of help in milder cases of histoplasmosis in which complement fixing antibody never develops or in terminal disease where the serology may be negative.

Case Report

A white housewife, aged forty-two, living in Toledo, complained of general weakness, febrile episodes, loss of appetite, productive cough and loss of 14 pounds in four weeks. Laboratory reports showed hemoglobin 13 gm., hematocrit 36 per cent, urine specific gravity 1.014 with no sugar, albumin or other abnormalities. BUN 14 mgm. Chest radiograph (Fig. 1) revealed two thin wall cavities in the right upper lobe with infiltration and numerous small calcifications throughout both lung fields. No previous x-ray findings were available. Tuberculin and histoplasmin skin tests were positive. Several sputa, blood culture and a bronchoscopy with bronchial secretions were all negative for tubercle bacilli and fungi. Complement fixation test showed a titre of 1:120. Coccidioidin skin test resulted in negative findings. Subsequent sputum was positive for histoplasmosis. Clinically, the patient was slowly debilitating, febrile, continued to lose weight and had persistent productive cough.

Therapy with intravenous amphotericin B was started. The initial dose given was 0.25 mgm. per kg. of body weight in 1000 cc. of 5 per cent glucose in water over a period of five to six hours. The dose was increased to 0.50 mgm. per kg. over the first week and the patient received a total of 540 mgm. of the drug during a period of six weeks with treatments given daily and at times only three times a week. She became afebrile after four days of treatment, and shortly thereafter her appetite began to improve and she began to gain weight. Repeated sputum studies after three weeks of therapy failed to show any growth of histoplasma C, the complement fixation titre showed a continuous decrease and the radiograph showed clearing of the upper lobe disease.

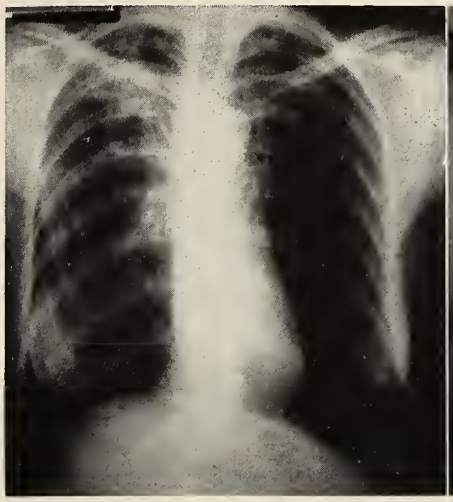


Fig. 1. Chest radiograph showing two thin wall cavities in right upper lobe with infiltrations and numerous small calcifications throughout both lung fields.

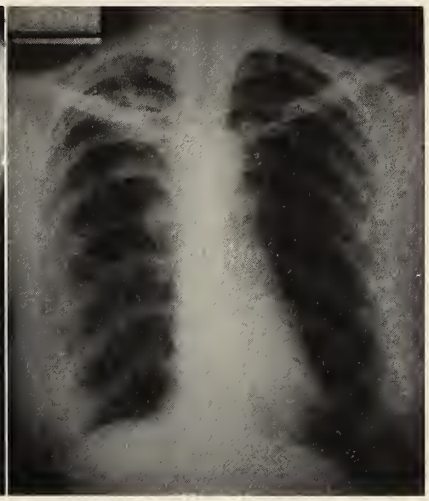


Fig. 2. Chest radiograph thirty days after therapy shows stability and remarkable clearing.

During the treatment, the patient experienced several episodes of anorexia, chills and headaches. A rise in BUN occurred to 40 mgm. Three weeks after completion of therapy, BUN was still 30 mgm. Thirty days after therapy was completed, the patient showed a gain of 16 pounds, was asymptomatic, showed a decrease in titer of complement fixation test to 1:24. Sputum was negative for histoplasmosis and the chest radiograph showed stability and a remarkable clearing (Fig. 2).

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Coffee Impact

Americans drink coffee at a rate that is bound to produce some illness declared E. C. Ridgway, M.D., Cody, Wyoming, at the AMA 1961 Clinical Meeting in Denver. He said there was no justified medical reason for eliminating industry coffee breaks, but that 15 cups of coffee would provide about 500 milligrams of caffeine, therapeutically considered "a good stiff dose." He also pointed to housewives who "indulge in one long coffee break . . . from breakfast until late afternoon. This may make them pretty hard to live with, and pretty intolerant and irritable with small children."

Report of a Sporadic Group of Cases of Coxsackie Infections

I. I. Bittker, M.D.
Royal Oak, Michigan

FREQUENTLY we are faced with diagnostic and epidemiological problems that, if not recognized, may assume epidemic proportions. This is particularly true of the enterovirus infections. In order to trace some of these viral diseases rather extensive laboratory procedures are necessary. Those infections that have meningeal involvement are diagnosed as aseptic meningitis, or non-paralytic polio, without a definite determination of the virus involved. Many of these cases may be echo, coxsackie or polio or may be secondary to other viral infections. Frequently the non-paralytic polio cases reported by contagious disease hospitals are not polio, but may be either echo or coxsackie. The need for full evaluation of the enterovirus infections is great, yet it is almost impossible to have the necessary laboratory work done due to the expense entailed. Also, there are very few laboratories that are equipped to do this work.

The most common enteroviruses, whose symptoms are related, are the echo, coxsackie and polio viruses. At present there are over 20 types of echo virus, about 30 of the coxsackie and three of the polio. These are sometimes impossible to distinguish except during epidemics. The need, therefore, for thorough viral study is very important to determine the causative factor of undifferentiated infections seen in sporadic outbreaks.

This was brought to my attention during July and August of 1961 by the following cases, all of which had been adequately immunized against polio:

Case No. 1—G. R. reported to my office on July 31, 1961—duration of illness over two weeks—symptoms were severe headache, vertigo, low-grade fever, recovered after one month. This man gave a history of exposure to a brother who had died in Flint, Michigan. The autopsy report of this brother was massive pulmonary hemorrhage, acute hemorrhagic glomerulo-nephritis (Goodpasture's Syndrome), hemorrhagic pneumonitis, scattered small perivascular petechial hemorrhages in the white matter of the cerebral cortex.

Another brother, exposed at the family gathering, had taken ill when he arrived home in California. He had an undetermined type of infection suggestive of a hepatitis.

Case No. 2 and *Case No. 3*.—Children of G. R. developed acute upper respiratory infection that lasted about three days.

Case No. 4—Family of sister of G. R., C. M. developed an acute upper respiratory infection.

Case No. 5—T. M., a boy, age 13, developed headache, fever, diarrhea—onset of illness August 9, 1961—laboratory report from the Michigan Department of Health, viral study, fecal matter, was positive for Coxsackie Group B5 in monkey kidney culture.

Case No. 6—S. M., sister of T. M., taken ill August 13, 1961—fever, headache, generalized muscle pains—nuccal resistance—transferred to Herman Kiefer Hospital, Detroit—diagnosed aseptic meningitis—spinal fluid over 200 cells—report from the Virology Division, Michigan Department of Health—Coxsackie B5 isolated in patient's stool.

Case No. 7—Contacts to M. family, next-door neighbor, M. M., girl, age 8, taken ill August 14, 1961—fever, headache and diarrhea—recovered August 20, 1961—viral study at Michigan Department of Health, fecal matter positive for Coxsackie Group B5 in monkey kidney culture.

The above group of cases emphasizes the fact that we must always watch for sporadic outbreaks of undetermined types of infections in order to guard against the onset of epidemics of these diseases. I believe that all of these cases were either direct or indirect contacts of the first case in Flint, Michigan.

Acknowledgment

I wish to thank Dr. Frank J. Condon of the Royal Oak Health Department for having the viral study made of these cases.

Cancer Control—What Can Be Done Today

While we await the discovery of a cure for all types of cancer, a new method for the earlier detection of this disease in its many forms or even techniques which could prevent this type of disease, there are a number of available methods of early diagnosis and treatment and other activities which we as physicians can use and participate in to save additional thousands of lives. It is estimated that by the more diligent and widespread use of presently available methods of cancer diagnosis and treatment 87,000 more lives could be saved annually.

The key words are *Early Diagnosis.*

The physician population and the public must be more adequately indoctrinated with the importance of the periodic or annual health examination as a method of detecting cancer, as well as many other diseases, *early,* when treatment is much more successful as well as much less costly.

Survey studies reported by John W. C. Cline, M.D., Past President of the American Cancer Society, indicate that 16,000,000 women in the U.S.A. who know about the Papanicolaou smear never had one; while 23,000,000 women in this country never heard of this technique for the early detection of uterine cancer.

Great progress has been made in the past five years and it is estimated that about 6,100,000 women will have smears this year. At least 40,000,000 to 50,000,000 should have them. Already uterine cancer deaths have declined from 26 per 100,000 twenty-five years ago to 13 today. Greater use of this simple technique can practically completely eliminate uterine cancer as a cause of morbidity and mortality.

The successful treatment of cancer of the female breast depends upon the early detection of the tumor usually by palpation. For more than ten years the instruction of women in the systematic self examination of their breasts so that it could be carried out at a convenient time on a monthly basis has resulted in the identification of a larger number of malignancies when they were quite small and when more adequate and successful treatment could be carried out. Many series of cases reported indicate the higher five year survival and cure rates of this type of cancer. The mortality rate from this type of cancer has also shown improvement in recent years.

The importance of making this examination a part of the health habits of all women early in life cannot be over-estimated. This is the primary responsibility of physicians both in their day to day handling of patients and by the use of appropriate public education methods.

Lung cancer remains a formidable national health problem. No type of cancer has shown greater increase in the past 30 years than malignancy of the lungs. The association between cigarette smoking and lung cancer has been so well-established that it cannot be seriously questioned. The routine chest x-ray at six month intervals, especially in heavy smokers, though not entirely reliable, is still the best detection method we have. However, a more basic approach to the problem seems to be through the formation of good health habits.

A major educational program of the American Cancer Society is directed toward teen-agers to point out to them the effects of the continued use of tobacco on the body especially with respect to lung cancer. It is encumbent upon physicians to aid, support and participate in projects of this nature.

The colon and rectum are the most frequent site of cancer common to both sexes. There were about 70,000 new cases and more than half as many deaths from this form of cancer last year. It is known that at least 75 per cent of these patients could have been cured had the condition been detected early.

The greater use of the digital examination of the rectum and proctosigmoidoscopy supplemented by the appropriate use of Barium enema x-ray studies are the only methods that we have that will detect these tumors early enough, when successful surgical treatment can be carried out. Another survey has indicated that 43 per cent of our population have heard of the proctosigmoidoscopy but only 13 per cent had experienced it. There is no doubt that these procedures should be a part of every annual health examination of those over 40 years and in all patients manifesting hemorrhoids.

The previously mentioned four types of cancer are areas where additional efforts on the part of physicians both in their day to day care of patients and by well-directed public education programs will save additional thousands of lives throughout the U.S.A. Physicians as community leaders in health matters must assume an increasingly important role in the dissemination of knowledge about cancer which will help the people in Michigan protect themselves against this type of disease. This saving of lives must be a cooperative effort—a teamwork among physicians, the American Cancer Society and public health authorities.

An alert public needs an even more alert medical profession.

The challenge of improvement is ours.

C. Allen Payne, M.D.

The Governor's Commission

In November, 1955, Michigan Hospital Service (Blue Cross—not Blue Shield) proposed a rate increase of 23.1 per cent to the Insurance Commissioner to cover increasing costs. There had been several such increases, because of hospital costs this being the third since 1953. An immediate storm of protest ensued, especially from organized labor.

On November 23, 1955, Walter P. Reuther, President UAW-CIO, wrote to Governor Williams protesting, and urged that the Commissioner of Insurance disallow the increase, order a complete review of the factors which cause "unnecessary" inflation of Blue Cross costs, and require the Plan to employ an outside agency to conduct studies and make recommendations with a view to finding a solution to the recurring problem of assuring a high quality of hospital care at a reasonable cost. Many others joined the Reuther protest: union leaders, retired and older people, agricultural people, all were creating unfavorable news reports.

On December 23, 1955, at a meeting with the Governor, Joseph A. Navarre, Commissioner of Insurance, urged the Governor to appoint a study commission to study the whole problem. At the December 28, 1955, hearing on the rates, Reuther again protested and the news reports were very poor publicity with no constructive gain. On January 5, 1956, John W. Paynter, President of Michigan Hospital Service, wrote the Governor urging that such a study be made for the best interests of Blue Cross and the general public. Late in February the Legislature planned to institute such a hearing. On January 10, after the Governor's Study Commission was assured, Mr. Navarre granted an over all increase of 15 per cent instead of the 23.1 per cent asked for four months previously. This increase was effective March 1, 1956.

Governor Williams appointed a commission of 15 citizens to hold hearings and make studies as to how better medical care could be given for less money. Hearings started February 20, 1956, and were continued in Detroit through March and April after some three months of improper and unfavorable publicity.

Michigan Medical Service (Blue Shield) was asked to assist in the study, as well as Michigan State Medical Society and Michigan Hospital Association. These hearings were held in Detroit and were open to the public. Anyone who wished was allowed to speak or to interrupt. Those whose duty it was to represent Blue Cross and Blue Shield and the hospital and medi-

cal profession, in explaining and justifying charges and expenses and accounting for so called abuses, were interrupted with impunity. The newspaper publicity was scare headlines with all sorts of statements, some true, some grossly unfriendly. Persons testifying for Blue Cross and Blue Shield were freely interrupted and the hearings got worse rather than better.

Later the Commission brought in a report that they could not answer the questions, that a thorough investigation and study was needed. The man whom they suggested at the University of Michigan said the study would take two years and would cost $200,000. This report would not give any relief to the rate increases which had been asked for and which would come in the future for Blue Shield as well as Blue Cross during another two years.

The Governor had no such money to continue his study, so his office suggested that Michigan Hospital Service and Michigan Medical Service each contribute $50,000 to help, the rest to come possibly from the Michigan State Medical Society and Michigan Hospital Association. These groups responded that they had no confidence that an unbiased report would result from the nominated person because of his known sympathy with federally sponsored plans.

Long periods of meetings and negotiations finally resulted in the W. K. Kellogg Foundation of Battle Creek offering to finance this study if a suitable medium, control and personage could be discovered in whom all four interests would have confidence, that is, Michigan Medical Service, Michigan Hospital Service, Michigan State Medical Society and Michigan Hospital Association. The osteopathic hospitals and Association were also considered in this grouping. Mr. Walter P. McNerney was finally appointed to work under a designated committee of administrators in Ann Arbor who would assure the world the hearings and studies would be unbiased. After a period of over three years the study was completed and analyzed in eight huge volumes of testimony, reports and interpretations. Blue Shield has made part of its analysis in three small volumes of a couple hundred pages each. The Governor's Commission had been disbanded and had to be reappointed in order to receive this report.

The Commission has recently completed hearings each Saturday at the United Foundation Building in Detroit. The Editor has attended the first and last of these hearings as have various members of The Council, Blue Shield officials and Board members, State Medical Society officers and others interested. These observations and information indicate satisfaction with the fair and respectful manner in which this procedure is being conducted. The Commission has given questions and outlined procedure and disconcerting and disturbing questions have not been allowed. This is so utterly different than the original hearings that we are encouraged as to the outcome.

Mr. McNerney in his report, and these officials in their testimony, report that the costs of hospital care are necessarily on the increasing grade for several reasons. Medical service is so utterly and completely advanced from what we had at the beginning of the Blue Shield era that there is no comparison as to price or dedication or results received. Drugs and techniques and services have all improved. Medical skills, surgical and intricate advances are so far reaching many of them were unheard of ten years ago. All of this costs money. The doctor's care and time, the hospital equipment, mechanical and artificial heart, artificial kidneys, artificial lungs, the tremendous number of technicians necessary, the perfection of anesthesia required, all have necessarily increased the cost of medical and hospital care. McNerney said those charges could not be expected to be reduced.

Another item McNerney brought out was the unfairness of the procedures. The voluntary prepayment hospital and medical programs are set up on a community rating—that is, the charges are averaged for the whole community. That rate is charged so that everyone pays the same rate which includes almost half the state population. This averages our rate as low as possible. Insurance companies, however, not having our service programs, can cover a selected group where there is less risk, and where the average experience is much less because those who would normally need less attention are the insured. Those insurance companies underbid the prepayment programs for certain selected areas. That throws the uninsured, the poor risks, the chronic invalid and the physically handicapped back into Blue Cross-Blue Shield where it necessarily increases expense as Blue Cross-Blue Shield does not have the benefit of the hundreds of thousands who have been taken out and given a special experience rating. The insurance companies which compete with Blue Cross and Blue Shield do not have to face public hearings—their increases in rates are approved without any publicity. The Blue Shield should be treated with the same consideration. This was one of the McNerney Report's recommendations, and Blue Cross-Blue Shield representatives are stressing it as a point of fair play.

Needed Michigan Legislation

At the last meeting, the House of Delegates of the Michigan State Medical Society, they recommended several things, among them that the payment rates for the crippled and afflicted children be readjusted to meet costs of the present time. The House recommended that every payment made by government for the benefit of crippled or afflicted children, adults, aged and indigents should be paid on an actual cost rating. Hospitals do not demand a profit but they must have a complete payment. In some of these groups there is a top limit which government will pay for hospital days and hospital care. These rates should be re-adjusted to meet the recognized cost schedule.

Fifteen years ago the Michigan State Medical Society House of Delegates adopted a resolution to the effect that as far as they are concerned, any individual who becomes the ward of the government, and for whom government must pay, ceases to be an indigent and his expenses should be paid. That type of resolution was re-enacted. The Legislature should make that one of their primary objectives.

"Medical Care"

Governor Swainson is advocating the Kennedy Administration's King-Anderson program of putting old age health care into the social security program. The Medical Society has urged that the Kerr-Mills Enabling Act be amended by raising the income limit up to $2000 for the man and $2000 for his wife, thus the old aged and retired and needy people can be taken care of under that act. Under Michigan law that involves all the customary care given to Blue Cross and Blue Shield policy holders.

Kennedy and Reuther and the other proponents of this Forand type care claim that Kerr-Mills imposes an embarrassment on these poor people because they have to disclose their needs before getting this service. They do not hesitate to put all sorts of embarrassment upon the people who pay income taxes. They not only must disclose their income, but every bank or corporation which pays as much as $50 interest or dividend must report that to the government, tipping the government off to the fact that there have been recipients of dividends and interest.

The government also provides hospital care in its 180 Veterans Administration Hospitals throughout the world and hundreds of thousands of patients, non-service connected, are taken care of if they will but certify that they are unable to pay. These hospitals have a form that the applicant signs and that's it. Perhaps they should be embarrassed but apparently are not.

There also is the matter of looking to the interests of the taxpayers, who are supporting the Kerr-Mills Law's benefits. Apparently the advocates of federal care have forgotten that this Kerr-Mills dollar goes to the persons who need it, and not those who are perfectly able to pay for their own care. This is the basic purpose of the means test, to avoid abuse and to direct the greatest possible amount of available money to those who are the most in need.

Present Problems—Kerr-Mills, King-Anderson

Observers in Washington with years of experience, believe the medical profession still has a chance to retain its independent practice during this latest co-ordinated drive for a foot in the door towards socialized medicine. The only chance is if HR-4222 stays in committee. If the administration's program gets on the floor, the opinion is that it undoubtedly will be passed because of the intense publicity regarding medical old age care which has been created in the past better than two years. There are over 16 or 17 million over-65 persons who have been told that if this act passes they will be getting "medical care" through social security at 1/8 of 1 per cent tax increase.

Most of these old people do not know the trick being played on them. Most of the advocates of this program do not know either and will not believe. This was brought out in a discussion at the MAP meetings in East Lansing on February 9 and 10. They have been told through this whole period that there would be "medical services." We have read that Bill over several times and there is not one word in it which provides for rendering medical services. It does provide for hospital services, nursing services, certain diagnostic services, nursing homes, et cetera. The only medical service allowed is pathology, radiology, anesthesiology and physiatry when rendered as a part of hospital service. It would be well for our members to acquaint themselves with these facts and tell their friends.

Declining Subscribers

In Michigan, Blue Shield and Blue Cross grew by leaps and bounds from the very first until the subscribers went over half a million and on to cover

over three million. In 1955-56 they reached almost 3,700,000 subscribers. Most other plans in other states experienced a similar but not quite so rapid growth. Most of the others and Blue Shield in particular have continued to grow each year. Michigan is the one major plan which after reaching this high number began to go backwards. The Board of Directors, the Administrator, The Council of the Michigan State Medical Society and its officials and other responsible medical officials throughout the state have been much concerned to find an answer to this problem and reverse the trend. We have lost over 300,000 subscribers in a period of about four years. McNerney suggested that a solution might be for all doctors to reduce their prices but the prices in Michigan correspond very closely with those throughout the country and correspond with what the federal government is paying for its program.

We feel part of the difficulty has been the continuous destructive publicity brought about by the hearings on every rate adjustment of which we have had to have too many because insufficient amounts were granted each time to carry the load. However, a public hearing was held in Lansing, Grand Rapids and Detroit for the last two or three series of hearings. McNerney has said these plans have done a wonderful job of establishing an entirely new approach to the care of the sick, providing them with adequate care. In the last two or three years time, the Insurance Commissioner told Blue Shield that he was only granting an increase for one year during which time they should live up to it. It never was adequate so new requests had to be made which meant another blast of hearings.

Automation is another item which accounts for loss of subscribers. This is one of the facts of life which we must consider, although labor has been fighting it and refusing to accept it. The automobile companies are building more cars with less labor, evidenced in the last five or six years. That probably accounts for most of the 300,000 loss we have had, but not all. Many groups of five people and up to 100 have changed to commercial insurance on experience rating where their costs were reduced, but where the coverage rendered will never be the same. Their insurance companies cannot give them medical and hospital "services"—they give them money which they may use to pay for these medical and hospital services. That trend could put the medical profession back to the early 1930's and the late 1920's at which time the Michigan State Medical Society negotiated agreements with practically all the old health and accident companies which paid for loss of time instead of illness. If a large enough percentage of our people go on experience rating coverage, Blue Cross and Blue Shield will be unable to care for those who are left who will be the unfavorable risks mainly. Prices will continue to mount but the satisfaction which is now expressed so many times by our patients will have disappeared.

This situation of criticism has brought the medical profession and especially the AMA into a continuing disrepute to the point of stimulating an editorial in the *Saturday Evening Post* for February 3. This editorial caused hundreds of our doctors to write to the *Saturday Evening Post* with letters of protest. This editorial had much in it that was complimentary, recognizing many things that medicine has done but insists that the AMA was always opposed to hospital insurance (that is the term it uses), saying that the AMA should wake up to the times and use its influence to do a good job, ending up with "How about it, Doc?"

The AMA and its officers who are now in active control are entirely different. Michigan's William A. Hyland, M.D., past MSMS Councillor, past Blue Shield official, past MSMS President, and active AMA House of Delegates member, served on a committee about four years ago making a thorough study of the activities and functions of the efficiency and organization of the American Medical Association. They brought in elaborate reports which have been put into effect since that time. The AMA has had a complete rejuvenation and reorganization. Dr. F. J. L. Blasingame of Texas is in charge and the attitude toward prepaid medical care has changed completely.

The Blue Shield program did not spring from the head of AMA, it sprang from the grass roots. A situation had arisen, a vacuum was present, and nature always fills vacuums. In deep depression days a method was found to provide for the medical and hospital care of our patients and the AMA has accepted this. At its meeting in St. Paul in 1958, the AMA House of Delegates unanimously passed a resolution urging all of the states and Blue Shield plans to set up a separate policy to take care of the senior citizens. Michigan was ready and that policy was soon on the market.

The *Saturday Evening Post* editorial suggests that the AMA look after the aged. In setting up our Blue Shield plans some 20 odd years ago, it was specifically provided that no person would lose his membership because he reached an attained age. If he was in his group and eligible, or even if he retired from the group, he could continue the Blue Shield program.

Cancer Comment

Cancer Registration

To most of us, cancer control means a program which encompasses research (fundamental, clinical and statistical); an educational program which includes both the medical profession and the public; and a program which promotes the utilization of the best methods of detection, diagnosis and treatment of this disease.

However, to work effectively in cancer control we must be able to measure our progress toward success. There is but one way to measure effectiveness in treating cancer: to run a continuous medical audit of cases handled and results achieved. This, in simple terms, is a cancer registry.

In 1956 cancer registries became a requirement for the American College of Surgeons' approval of cancer programs.

At the present time there are 887 cancer programs in the United States and Canada (22 in Michigan) approved by the Committee on Cancer of the College in accordance with the minimum requirements. These requirements were published in the Manual for Registries and Cancer Clinical Activities in 1955.

There are fundamentally three types of cancer registration, each with a somewhat specific purpose, and a fourth type that can embrace the functions of any of the first three.

The three basic types are as follows:

(a) *Epidemiologic registries.*—Their function is essentially research. Only a few of this type are needed or in existence.

(b) *Special site or type registries.*—For example, bone tumor registries, pediatric tumor registries, slide registries. Their function is essentially *education* and *reference.*

(c) *Diagnosis and treatment evaluation.*—This is the type of registry with which the hospitals are primarily concerned. Its function is basically evaluation. When properly conceived and operated, it enables a hospital to assess its function in cancer diagnosis and treatment. Its keystone is the accurate recording of necessary minimal information on all cancer cases. Its useful expression is in the report of survival and end results. Every hospital having responsibility for treating any sizable quantity of cancer should have this type of registry function.

There can be no doubt that hospital registries have improved the records on cancer. They have evoked interest in this important aspect of cancer control in attending physicians, residents, and interns. The primary purpose of an evaluation registry is to provide the staff with a clear picture of how it is doing in diagnosis and treatment of cancer—not merely to prepare statistical data which often is not used. It is physician participation, interest, and willingness to accept responsibility that make a registry purposeful.

A successful follow-up of all the cancer patients diagnosed and treated in a hospital is dependent on the understanding and agreement of the medical staff.

The fourth type of registry which can conceivably embrace some of the function of all three of the basic types is the central registry. Epidemiologic or special registries may be central at their outset. Evaluatory hospital registries may find advantage in sharing their experiences in a central registry, and thereby enabling one hospital to compare its results with another. The success of such a registry, however, is totally dependent upon the quality of the separate evaluatory registries that contribute to it.

Effective hospital registries cannot and do not attempt to give reliable prevalence information or morbidity or mortality rates in an area, state, or region. The central registry, making use of all the data from approved hospital programs, can estimate and approximate this important information.

HARRY M. NELSON, M.D.
Chairman, Cancer Control Commission
Michigan State Medical Society
Chairman, Sub-Committee on Registries
American College of Surgeons

Partnership Associations by M.D.'s Approved by Attorney General's Opinion

PARTNERSHIP ASSOCIATIONS: Formation by medical doctors or osteopathic practitioners.

CORPORATION AND SECURITIES COMMISSION: Authority over filing articles of association of partnership association.

Medical doctors or osteopathic practitioners may form partnership associations pursuant to the provisions of Act 191, PA 1877, as amended. The powers and duties vested by law in the secretary of state with respect to partnership associations are vested in the Michigan corporation and securities commission.

Opinion No. 3651 *March 5, 1962*

Mr. Raymond F. Clevenger, Commissioner
Corporation and Securities Commission
300 East Michigan Avenue
Lansing, Michigan

By Solicitor General Krasicky.

You have requested my opinion on the following questions:

1. May the Michigan Corporation and Securities Commission find that articles of association of a partnership association conform to law, and file such articles pursuant to Sec. 5 of Act. 320, Public Acts of 1931, as amended, where the character of the business to be conducted is (a) the practice of medicine or (b) the practice of osteopathy?
2. Were the powers and duties vested by law in the Secretary of State with respect to the formation, organization, regulation and control of partnership associations by Act 191, Public Acts of 1877, transferred and vested in the Michigan Corporation and Securities Commission by Act 13, Public Acts of 1935, as amended?

Act 191, PA 1877, as amended,[1] provides for the formation of partnership associations. Section 1 of the act authorizes any three or more persons to form a partnership association "for the purpose of conducting any lawful *business* or occupation." (Emphasis supplied)

The Michigan Supreme Court in *Sloman v. Bender*, 189 Mich 258, has ruled that the practice of the profession of the law was included within the term "business" as used in a Michigan statute authorizing the formation of a partnership upon any two or more persons engaged in "carrying on any business as co-partners," even though persons seeking to join such a partnership had to be licensed to practice law.

The practice of medicine is licensed and regulated under the provisions of Act 237, PA 1899, as amended.[2]

Practitioners of osteopathy in Michigan are licensed and regulated under the provisions of Act 162, PA 1903.[3]



Based upon the precedent found in *Sloman v. Bender*, supra, the practice of any profession *per se* is the conducting of a lawful business under Sec. 1 of Act 191, PA 1877, supra, and any three or more persons may form a partnership association for the practice of medicine or osteopathy under its terms.

The legislature has made provision for the continuity of the life of a partnership association under Act 191, PA 1877, supra, by providing in Section 1 that the contemplated duration of such association shall not in any case exceed 20 years, and under Section 4 of the act makes the interests of the association transferable under rules and regulations of the association, subject to election to the association by a vote of the majority of the members in number and value of their interests. Thus, the interests of a member is freely transferable, subject to election by vote of the majority of the members as required by statute.

As long as the articles of association of the partnership association formed by medical doctors or osteopathic practitioners require that the transferee of the member's interests must be properly licensed by the state of Michigan as the partnership association may properly provide under the act, there appears to be no violation of any provision of either Act 237, PA 1899, as amended, supra, or Act 162, PA 1903, as amended, supra.

Section 2 of Act 191, PA 1877, limits the liability of any member of such partnership association for the debts of the partnership association to the assets of the partnership association in any portion of subscription in the capital of the association which has not been paid in full by him. It should be stressed that a medical doctor or osteopathic practitioner is personally and fully responsible to any patient whom he treats for malpractice. In this regard reference is made to *Johnson v. Borland*, 317 Mich. 225, where the Michigan Supreme Court ruled that a physician or surgeon owed a duty to a patient to exercise reasonable and ordinary care, skill and diligence even though he renders the services gratuitously. In addition to any liability by the individual practitioner who is a member of the partnership association, the partnership association, under Sec. 2 of the act, would be responsible for his negligent act to the extent of the assets of the partnership association and any unpaid subscriptions to the capital by the members of the association.

The articles of association of a partnership association formed to practice either medicine or osteopathy should provide that the partnership association shall secure malpractice insurance in reasonable amounts so that members of the public will be properly protected. This follows a pattern set by the Michigan Supreme Court in the case of *Parker v. Port Huron Hospital*, 361 Mich. 1, which reflects the public policy of this State.

The legislature has made provision for the centralized management of the partnership association under Sec. 5 of Act 191, PA 1877, through the election of a board of managers of not less than three nor more than seven managers. Sec. 5 sets forth the limits of authority of the managers so elected, and it is apparent that the legislature has vested the authority to empower the managers in the members of the association. So that there would be no conflict with the provisions of Act 237, PA 1899 or Act 162, PA 1903, the articles of association of a partnership formed under Act 191, PA 1877, should specify that the majority of the managers shall be medical doctors or osteopathic practitioners. Further, the articles of association should expressly provide that the managers shall have no authority whatever to interfere with the professional relationship between any member of the association and his patient.

There is no provision in Act 237, PA 1899, as amended, supra, which would bar physicians and surgeons from incorporating for the practice of medicine. However, the Attorney General has ruled in an unpublished opinion dated August 3, 1938, that doctors of medicine cannot incorporate under the general corporations act for the practice of medicine.

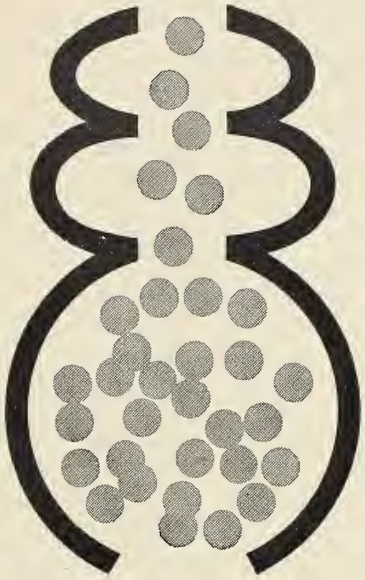
Although Act 162, PA 1903 contains no express provision barring osteopathic practitioners from forming a corporation for the practice of osteopathy, the Attorney General has ruled that it is unlawful for a corporation formed under the general corporations act to provide osteopathic services through licensed agents or officers. OAG 1955-1956, Vol. II, page 124, No. 2451, March 7, 1956.

The aforesaid opinions of the Attorney General must be considered with reference to incorporation under the general corporation act, being Act 327, PA 1931, as amended,[4] not in issue here and therefore not controlling.

While the Michigan Supreme Court has held that partnership associations formed under Act 191, PA 1877, supra, are governed by the law of corporations, *Rouse, Hazard & Co. v. Detroit Cycle Co.*, 111 Mich 251; *Staver & Abbott Mfg. Co. v. Blake*, 111 Mich 282, nevertheless the Michigan Supreme Court in a later case, *Attorney General v. Hill-Davis*, 261 Mich. 89, has held that partnership associations are not declared to be corporations by the statutes allowing their creation; nor can they be considered as corporations except for purposes expressly enumerated in the Constitution.

Thus, it may be concluded that for some purposes, i.e., those enumerated in the Constitution, partnership associations formed under Act 191, PA 1877, have the characteristics of and can be considered corpora-

(Continued on Page 488)



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lowers motility / relieves cramping / controls diarrhea

Roentgenographic studies by Demeulenaere[1] established that a single dose of 10 mg. of Lomotil slowed gastrointestinal transit within two hours and that it maintained its decelerating activity for more than six hours.

In diarrhea this lowered propulsion permits a physiologic absorption of excess fluid, lessens frequency and fluidity of stools and gives safe, selective, symptomatic control of most diarrheas. Concurrently, it conserves electrolytes and controls cramping.

Investigators have found the antidiarrheal action of Lomotil not only "excellent"[2] but "efficacious[3] where other drugs have failed. . . ."

DOSAGE: For *adults* the recommended initial dosage is two tablets (2.5 mg. each) three or four times daily, reduced to meet the requirements of each patient as soon as the diarrhea is under control. Maintenance dosage may be as low as two tablets daily. For *children* daily dosages, in divided doses, range from 3 mg. (½ teaspoonful three times daily) for infants 3 to 6 months to 10 mg. (1 teaspoonful five times daily) for children 8 to 12 years. Lomotil is supplied as unscored, uncoated white tablets of 2.5 mg. and as liquid containing 2.5 mg. in each 5 cc. A subtherapeutic amount of atropine sulfate (0.025 mg.) is added to each tablet and each 5 cc. of the liquid to discourage deliberate overdosage. The recommended dosage schedules should not be exceeded.

NOTE: Lomotil is an exempt narcotic preparation.

Descriptive literature and directions for use detailed in Physicians' Product Brochure No. 81 available from G. D. Searle & Co., P. O. Box 5110, Chicago 80, Illinois.

1. Demeulenaere, L.: Action du R 1132 sur le transit gastrointestinal, Acta Gastroent. Belg. 21:674-680 (Sept.-Oct.) 1958.
2. Kasich, A. M.: Treatment of Diarrhea in Irritable Colon, Including Preliminary Observations with a New Antidiarrheal Agent, Diphenoxylate Hydrochloride (Lomotil), Amer. J. Gastroent. 35:46-49 (Jan.) 1961.
3. Weingarten, B.; Weiss, J., and Siman, M.: A Clinical Evaluation of a New Antidiarrheal Agent, Amer. J. Gastroent. 35:628-633 (June) 1961.

G. D. SEARLE & CO.

Research in the Service of Medicine

(Continued from Page 486)

tions by the statute authorizing their formation. The conclusion, therefore, is imperative that medical and osteopathic practitioners may form partnership associations under the provisions of Act 191, PA 1877, supra.

My conclusion finds support in the opinion of the Department of Justice of the State of Pennsylvania, No. 243, dated September 27, 1961, holding that a group of physicians may practice medicine as a partnership association under the provisions of Act of June 2, 1874, P.L. 271, as amended, 59 P.S. §§ 341 et seq. The Michigan Supreme Court in *Rouse, Hazard & Co. v. Wayne Circuit Judge*, 104 Mich. 234, held that Act 191, PA 1877, supra, was almost an exact copy of the Pennsylvania statute of 1874.

The Attorney General of the State of Ohio has also ruled that professional men, such as doctors, may become associated as a limited partnership association under Ohio statutes. OAG No. 2050, dated March 10, 1961.

My decision also finds support in *Toole v. Michigan State Board of Dentistry*, 306 Mich. 527, which held that while the Michigan statute regulating the practice of dentistry prevents such practice by corporations, there is nothing in the dental registration act which would prohibit the practice of dentistry by partners. Further, such practice in no way violated any rule prohibiting fee splitting.

To like effect is *Scarney v. Clarke*, 282 Mich. 56, where the Michigan Supreme Court recognized the right of a group of physicians to form an association for the purpose of practicing medicine.

Under *Toole*, supra, the formation of a partnership association to practice medicine or osteopathy would neither violate any rule permitting fee splitting, nor any Michigan statute barring fee splitting,[5] as it relates to fee splitting by medical doctors.

While your question is related only to medical doctors and osteopathic practitioners, it is patent that the same principle would be applicable to members of other professions, such as dentists, lawyers and other professions.

Therefore, it is my opinion that medical doctors or osteopathic practitioners duly licensed under Michigan law may avail themselves of the provisions of Act 191, PA 1877, supra, to form partnership associations thereunder, and the Corporation and Securities Commissioner is obligated to accept articles of association which conform to the provisions of Act 191, PA 1877, supra.

In response to your second question, a reading of Act 13, PA 1935,[6] and specifically Sec. 3 thereof, reveals that the legislature in transferring authority formerly reposed in the secretary of state to the Michigan Corporation and Securities Commission formed under Act 13, PA 1935, supra, did so by specific enumeration of the public acts of this state. Act 191, PA 1877, supra, is not enumerated therein and it is unclear whether the legislature did intend thereby that the duties vested in the secretary of state by Act 191, PA 1877, be transferred and vested in the corporation and securities commission.

However, the Michigan Corporation and Securities Commission, since its formation, has discharged the duties vested in the secretary of state by Act 191, PA 1877, as a result of administrative interpretation that Act 13, PA 1935, supra, be construed to allow such transfer of authority.

Courts will give weight to administrative construction of a statute where the administrative construction is within the terms of the act, the provisions of which are obscure or ambiguous. *Detroit Board of Education v. Superintendent of Public Instruction*, 304 Mich. 206.

While Act 13, PA 1935, supra, fails on its face to reveal any obscurity or ambiguity which would support the administrative construction that has been made, consideration must be given to *Whitney Realty Co. v. Secretary of State*, 228 Mich. 96, where the court ruled that sections 12 and 13 of Act 199, PA 1877, supra, were repealed by implication by Act 85, PA 1921, as amended,[7] so that partnership associations formed thereunder were required to file their reports and pay the fees in compliance with the provisions of that act.

Act 85, PA 1921, supra, requires fees and annual reports to be filed with the Michigan corporation and securities commission under Sec. 1 thereof.

Reading Act 191, PA 1877, supra, Act 13, PA 1935, supra, and Act 85, PA 1921, supra, together, I am persuaded that the administrative interpretation made by the corporation and securities commission relative to its administration of the provisions of Act 191, PA 1877, warrants the conclusion that the powers and duties vested by law in the secretary of state with respect to formation, organization, regulation and control of partnership associations by Act 191, PA 1877, supra, are vested in the Michigan Corporation and Securities Commission.

FRANK J. KELLEY
Attorney General

References

1. CL 1948 §449,301 et seq; MSA 1959 Rev Vol §20.91 et seq.
2. CL 1948 §338.51 et seq; MSA 1956 Rev §14.531 et seq.
3. CL 1948 and CLS 1956 §338.101 et seq; MSA 1956 Rev §14.571 et seq.
4. CL 1948 and CLS 1956 §450.1 et seq; MSA §21.1 et seq.
5. CL 1948 §338.53; MSA §14.533 and CL 1948 §750.428; MSA §28.683.
6. CL 1948 §451.1 et seq; MSA 1959 Rev §19.781 et seq.
7. CL 1948 §450.301; MSA §21.201.

Focuses on Efforts To Attract Students

Gerald D. Dorman, M.D., New York, a member of the A.M.A. Board of Trustees, recently commented on the supply and quality of medical students.

In part, he declared: "For some time, the American Medical Association has been aware of the decline in the number of eligible college students seeking admission to medical schools. This apparent shift away from medicine is due, in part, we believe, to the high cost in time and money of securing a medical education. This trend has been accentuated by a dramatic emphasis on careers in science and engineering. . . .

"The House of Delegates of the American Medical Association in November, 1960, established two programs, the objectives of which are complementary and interrelated.

"First, the House authorized a student honors and scholarship program designed to focus attention on careers in medicine, to attract a substantial group of able students to prepare for admission to medical schools and to assist financially a limited number of outstanding students who, for financial reasons, are unable to pursue a career in medicine.

"Second, the A.M.A. House of Delegates has adopted a student loan program designed to alleviate the financial difficulties of medical students and to encourage career decisions in favor of medicine."

Dr. Dorman also pointed out that the A.M.A. in the past 10 years, in collaboration with the Association of American Medical Colleges, has aided interested organizations in the establishment of six new medical schools. "Currently, commitments have been obtained for another five schools and we are in consultation with sixteen institutions or organizations presently contemplating the establishment of new medical schools," he added.



Seattle Fair Trip Suggested

The physicians in Washington State are cordially extending an invitation to doctors throughout the country who plan to visit the Seattle World's Fair this September to coincide their trip with the 73rd Annual W.S.M.A. Meeting in Spokane, September 16-19.

Three days of scientific programs are scheduled with nationally known guest scientific speakers, medical television, specialty sessions and general sessions included. For additional information on this outstanding state program and hotel reservations in Spokane and Seattle, contact the Washington State Medical Association, 1309 Seventh Avenue, Seattle.

The dates of the Seattle World's Fair are April 21 to October 21, 1962, and information is available from the Washington State Medical Association on scientific meetings scheduled in the state during that time. For hotel reservations in Seattle during the Fair, contact Expo Lodging Service, Seattle World's Fair, Seattle, 9, Washington.



J. C. Rawling, M.D., right, of Flint, aboard the Hope ship last year, listens to Dr. Hien, Vietnamese resident in urology, explain a problem to a native patient.

Project Hope Continues to Serve

Hope, MSMS members know, is the name of a former Naval Hospital ship which has been turned over for use in carrying American medicine to places throughout the world.

Hope started out in the Orient, and continues to take skilled medical men, who are also used as instructors for the hospitals in the areas which they visit.

(Editor's Note: Our thanks to John C. Rawling, M.D., Flint, who was aboard the ship for a period last year, for the picture.)

National Library Moves

The new National Library of Medicine, now under construction in a Washington suburb, will house the world's greatest collection of medical literature. On its grounds will be a historic tree, grown from a healthy cutting from an Oriental plane tree on the Island of Cos under which Hippocrates taught his pupils some 25 centuries ago. The cutting is a gift to the new library from the Greek Government.

Long a world-wide source for rare medical facts, the National Library of Medicine celebrated its 125th anniversary last year. It was founded with $150 for books for an Army medical library. Dedication ceremonies for the new building were held this past December to coincide with the anniversary. The bulk of the library's collection is now in a structure in downtown Washington. These volumes will be moved into the new building, scheduled to be completed by mid-1962.

The new structure is on the grounds of the National Institutes of Health in Bethesda, Maryland. Costing about $7 million, the building located on an 11-acre site, has five floors, three of which are below ground level.

Another AMA Gain

Among the accomplishments of the AMA is the Association's long, relentless and costly fights to prevent government encroachment into the field of medicine.

The AMA has campaigned strong and vigorously for many years to keep government out of the practice of medicine and today, doctors almost to a man are opposed to socialized medicine—medical services supported and controlled by the government.

In every legislative campaign that the AMA has ever undertaken, it has tried to show forcefully and clearly that politics and medicine do not mix, and that government medicine in any form is detrimental to the patient.

AMA Meeting Focuses on Nuclear Medicine

The American Medical Association and the Atomic Energy Commission will sponsor a joint meeting on Nuclear Medicine at the 111th annual meeting of the AMA at Chicago, June 24-28.

Theme of the overall annual meeting will be "Medicine in the Atomic Age." All sessions and exhibits will be concentrated in Chicago's new convention hall, McCormick Place.

"The nuclear age already has begun to bring many changes and innovations to the practice of medicine," said Samuel P. Newman, M.D., of Denver, chairman of the AMA's Council on Scientific Assembly.

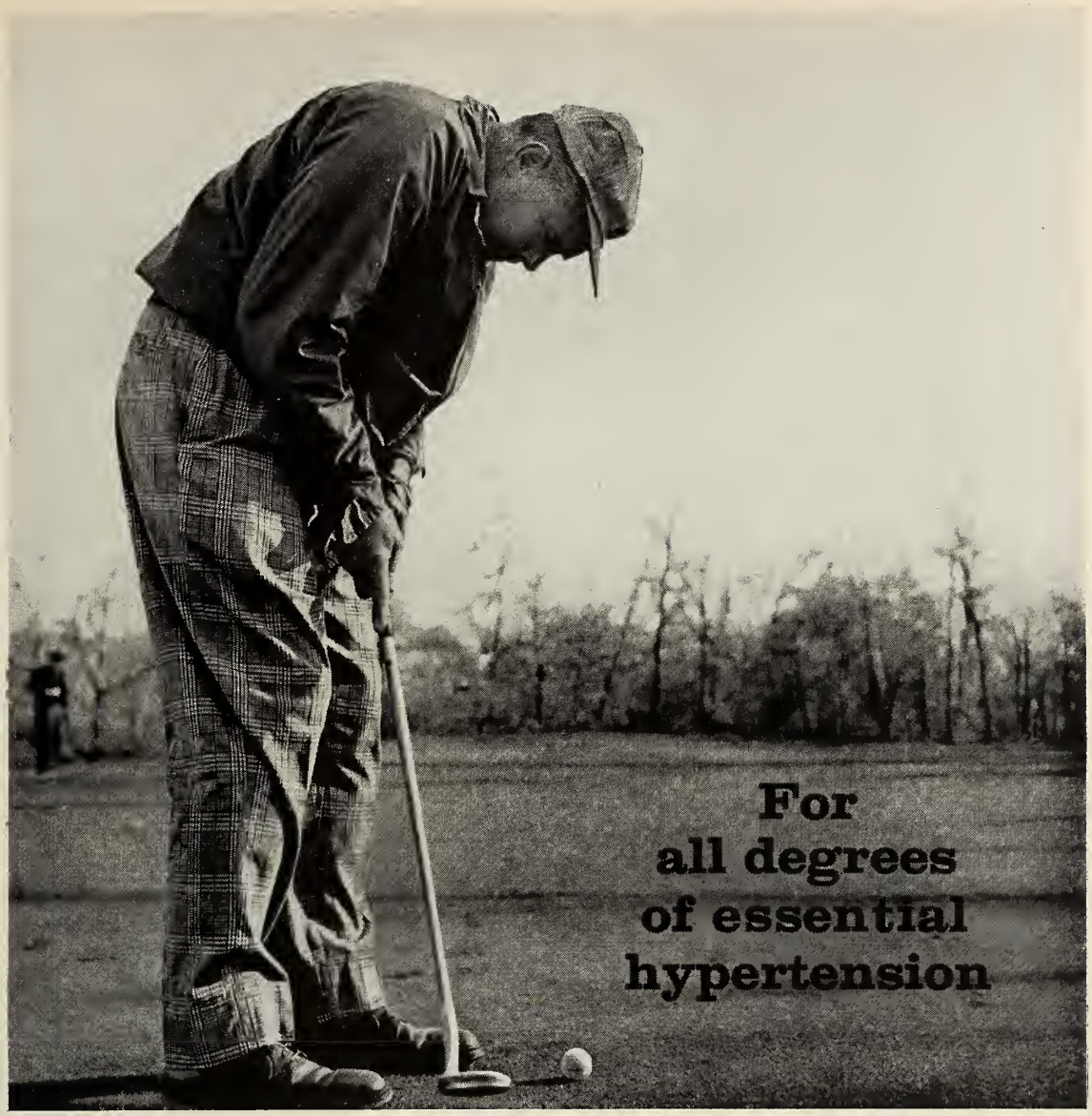
The 1962 AMA meeting will be the first in recent history in which it will be possible to house the entire meeting—scientific sessions, scientific and industrial exhibits, section meetings—under one roof.

Medical Exams for School Children

The American Medical Association has thrown its full support behind a new nation-wide campaign for periodic medical examinations for young people of school age.

The campaign is a vital part of the overall program sponsored by President Kennedy's Council on Youth Fitness and a reaffirmation of a continuing effort on the part of AMA. Formed in 1959 under former President Eisenhower, the bi-partisan Council is presently coordinated by Charles B. (Bud) Wilkinson, football coach at the University of Oklahoma.

AMA's continued support of periodic health examinations was expressed in a letter sent to over 1,900 county medical societies by Leonard W. Larson, M.D., AMA president.



"relief of symptoms is striking with Rautrax-N"†

Rautrax-N decreases blood pressure for almost all patients with mild, moderate or severe essential hypertension. Rautrax-N also offers a new sense of relaxation and well-being in hypertension complicated by anxiety and tension. And in essential hypertension with edema and/or congestive heart failure, Rautrax-N achieves diuresis of sodium and chloride with minimal effects on potassium and other electrolytes.

Rautrax-N combines Raudixin (antihypertensive-tranquilizer) with Naturetin c̄ K (antihypertensive-diuretic) for greater antihypertensive effect and greater effectiveness in relief of hypertensive symptoms than produced by either component alone. Rautrax-N is also flexible (may be prescribed in place of Raudixin or Naturetin c̄ K) and economical (only 1 or 2 tablets for maintenance in most patients).

Supply: Rautrax-N — capsule-shaped tablets providing 50 mg. Raudixin, 4 mg. Naturetin and 400 mg. potassium chloride. *Rautrax-N Modified* — capsule-shaped tablets providing 50 mg. Raudixin, 2 mg. Naturetin and 400 mg. potassium chloride.

†Hutchison J. C.: Current Therap. Res. *2*:487 (Oct.) 1960.

For full information, see your Squibb Product Reference or Product Brief.

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MICHIGAN DEPARTMENT OF HEALTH

ALBERT E. HEUSTIS M.D., State Health Commissioner

Clarification of Laboratory Services

In July of 1961, the Michigan Department of Health was forced to curtail certain diagnostic laboratory services. These were listed in the July issue of THE JOURNAL. However, since that time, we have received numerous inquiries from many private physicians regarding this curtailment. To clarify the matter, it should be made clear that *no services connected with the diagnosis or control of communicable diseases have been discontinued.* The only diagnostic services which were discontinued as of July 3, 1961 are those connected with the following:

A. Blood grouping; Rh testing; Anti-Rh titrations; and ABO determinations;
B. Blood chemistry; hematology; and urinalysis.

Syphilis on the Increase

Infectious syphilis, often popularly thought to be no longer a public health problem, is on the increase in Michigan. Last year, 314 cases were reported to the state health department. This represents an increase of 54 per cent over the 1960 figures, and an increase of 205 per cent over the 1959 figures. Even more significant, the evidence indicates that the actual number of cases of infectious syphilis far outnumbers the reported cases. This despite the fact that effective techniques of control and therapy to stop the spread of syphilis have been available for a good many years.

Another indication of the continuing syphilis problem is that during the fiscal year ending June 30, 1961, there were 932 resident patients in state-supported mental institutions in Michigan with psychoses due to syphilis. The cost to Michigan taxpayers is about 1.7 million dollars each year.

The rise in incidence of infectious syphilis is evident throughout the state. In fact, while the increase in cases in Detroit was about 50 per cent in 1961 over 1960, it was almost 60 per cent in this same period in outstate Michigan. So that, while it is true that the majority of cases occur in the Detroit area, the rate of increase is actually greater outside Detroit.

The increased spread of infectious syphilis currently being observed will undoubtedly be accelerated greatly unless positive steps are taken now to prevent it. A major step necessary if syphilis is to be curbed is the establishment of a higher "index of suspicion" among private phyicians, along with better morbidity reporting. Unfortunately, experience indicates that many private physicians have come to consider infectious syphilis as no longer a problem and tend to put their reliance on "miracle" drugs instead of good case-finding and contact investigation.

Undoubtedly, many cases of syphilis do not get diagnosed because the physician is not actively looking for it. But even when a patient is diagnosed and treated, if no effort is made to locate the source of the disease, very little, if anything, is accomplished in syphilis control.

Our records show that the average patient infected with primary and secondary syphilis, when properly interviewed, will name at least four sexual contacts over a six month period. If anything is to be accomplished toward reducing syphilis to an irreducible minimum, the chain of infection must be broken. This can only be accomplished if every single case of infectious and potentially infectious syphilis turned up is interviewed and his contacts, associates, and acquaintances brought to examination.

It is interesting to note here, that last year 42 per cent of the private physician cases interviewed named out-of-state contacts. Of these, ten per cent named only out-of-state contacts, the remaining 32 per cent naming contacts both in and out-of-state. This illustrates the fact that syphilis is a disease which knows no political or geographic boundaries and which can be controlled properly only on an interstate basis. That basis is established and the Michigan Department of Health regularly reports all out-of-state contacts to the respective states involved and receives reports of contacts in Michigan named by patients in other states. We recognize the fact that few, if any, physicians have the time to do good interviewing of patients with syphilis. But the local health department is, ordinarily, equipped to follow-up on all cases which come to light. All that any physician need do is to call his local health department, or the state health department, and he can be sure that proper follow-up and investigation will take place.

Other services available from state and local health departments include medical consultation, educational materials, and laboratory service including darkfield examination of suspicious lesions. It should be stressed that all records are handled confidentially and health department personnel are trained to be discreet in working with all patients.

The Michigan Department of Health knows that the rising trend of infectious syphilis can be reversed. That reversal, however, is dependent to a large extent upon increased participation in venereal disease control by private physicians.

State Pharmacists Honor MCI Speaker

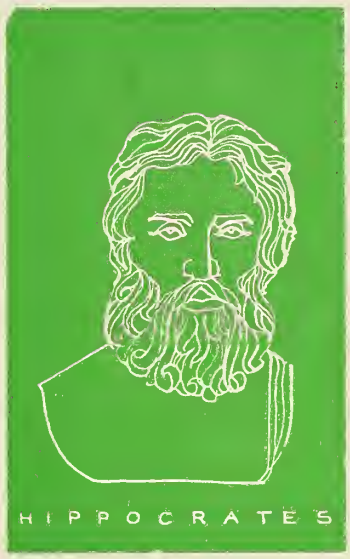
The Michigan State Pharmaceutical Association honored Raymond M. Rice, M.D., vice president of Eli Lilly & Company, at a luncheon at the Sheraton-Cadillac Hotel, February 28. Dr. Rice presented the Pharmaceutical Lecture at the Michigan Clinical Institute held in Detroit.

Richard J. Beissel, President of the State Pharmaceutical Association, presented a Distinguished Service Award to Dr. Rice.

In attendance at the luncheon were officers and executive committee members of the M.S.P.A.; Otto Engelke, M.D., Ann Arbor, President of the Michigan State Medical Society; Gilbert B. Saltonstall, M.D., Charlevoix, General Chairman of the Michigan Clinical Institute; deans of the Wayne State University and Ferris Institute Colleges of Pharmacy and other representatives of the medical and pharmacy professions.



Raymond M. Rice, M.D., right, MCI Pharmaceutical Lecturer, was given a citation by Richard J. Beissel, R.Ph., left, during the MCI as MSMS President Otto K. Engelke, M.D., center, adds his congratulations.



Wayne State Announces Speakers for Alumni Clinic Day

The Alumni Association of the Wayne State University College of Medicine announces plans for the 94th Annual Clinic Day and Alumni Reunion, May 2, at the Sheraton-Cadillac Hotel in Detroit. The scientific program will begin at 9 a.m. and close at 4:30 p.m. The Reunion dinner-dance will begin at 6 p.m.

The Dinner-dance program will feature Mack Pitt and his orches-

tra. Also featured will be individual class reunions around tables at the banquet.

Reservations for the scientific program and the reunion program should be sent to C. Jackson France, M.D., 17712 Mack Avenue, Detroit 24, Michigan.

As in the past, post-graduate credit will be given to doctors who participate in the Scientific Program.

The scientific program consists of the following:

"Pulmonary Changes Provoked by Inhaled Atmospheric Pollutants"

ARTHUR J. VORWALD, PH.D., M.D., Professor and Chairman, Department of Industrial Medicine and Hygiene, Wayne State U.

"Studies of Lipid Metabolism in Man with C^{14} Labeled Precursors"

ALLEN R. HENNES, M.D., Associate Professor of Medicine, WSU, College of Medicine

"Has the Role of Radiotherapy Changed in Cancer of the Cervix?"

JAMES E. LOFSTROM, M.D., Professor of Radiology, WSU, College of Medicine

"Angina Pectoris: A Mysterious Symptom of a Mysterious Disease"

RICHARD J. BING, M.D., Professor of Medicine, Chairman, Department of Medicine, WSU, College of Medicine

"The Asymptomatic Pulmonary Nodule"

RAYMOND C. READ, M.D., Associate Professor of Surgery, WSU, College of Medicine

"Diverticulitis of the Sigmoid Colon"

ALEXANDER WALT, M.D., Assistant Professor of Surgery, WSU, College of Medicine

"Choice of Therapy for Patients with Arterial Disease"

F. A. SIMEONE, M.D., Professor of Surgery, Western Reserve University, College of Medicine

"The Newer Antibiotics"

HARRY DOWLING, M.D., Professor and Chairman, Department of Medicine, University of Illinois, College of Medicine

Rehabilitation Reports Hemiplegic Cases from Allegan Health Center

The service of rehabilitation started in May 1961 and an increasing number of different types of disabilities have been admitted for rehabilitation. Among them are arthritics, amputees, fractures, cerebral palsy, muscular dystrophy, thrombophlebitis, bursitis, back strain, et cetera. One of the larger groups are the hemiplegic patients and it is the purpose to review the first ten cases here.

The group consisted of eight women and two men, with an average age of 70.2 years. All were classified as C.V.A. except one, who was diagnosed as arterio-venous fistula, the hemiplegic state caused by ligation of the carotid artery. Six can be classified as "acute" cases, starting treatment within the first four months after onset. The other four must be classified as "chronic" as they were admitted from ten to thirty-six months after onset. Complications to the main diagnosis was diabetes in three cases, thrombophlebitis in one case, arterial hypertension three, cardiac insufficiency two, colitis one.

The rehabilitation program consisted of physical exercises to reactivate and strengthen weak muscles, increase coordination, gait training, passive and active stretching to avoid contractures and increase range of motion of joints in cases where limitations and deformities had been permitted. Occupational therapy was offered for diversional and therapeutic purposes, emphasizing the increased use of the weakened upper extremity. Activities of daily living (ADL) were carried on by the nurses and gradually gave the patient the ability for self care in feeding, washing, dressing, transferring, using toilet and shower.

None of these cases needed speech therapy or training in control of sphinctures. Five were fitted with braces because of drop foot and other muscle weakness of the lower extremity. One was furnished with armsling on account of subluxation of the shoulder joint.

The length of inpatient care averaged 65 days, the shortest 8 days, the longest 151 days. The three who spent more than 100 days were "chronic" cases, who came many months after onset.

The result of this comprehensive program shows that seven were made ambulatory with or without cane. Six that needed wheelchair on admission were reduced to two on discharge; nine learned to use bathroom with little or no assistance; nine practically completed their ADL program. Only one might have a chance for employment. This patient was 48 years old, while the others were all above 63 years of age and were not interested in vocational rehabilitation.

On discharge only three went to nursing homes; the others went to live with their families.

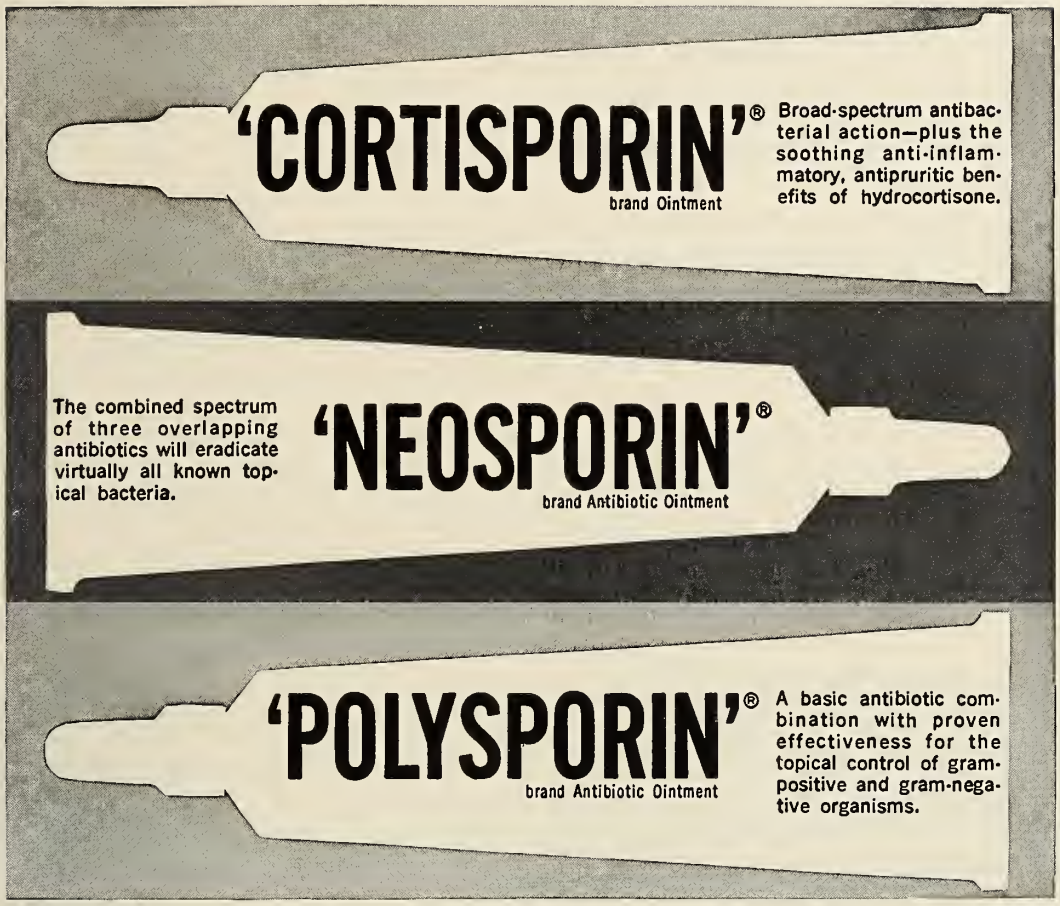
Payments for care were made in a number of ways: (1) Cash by patient or family, (2) Department of Welfare, (3) Private group or individual insurance, (4) Michigan Hospital Service. Method of payment was arranged before admission of patient.

Discussion

This group is too small to prove any significant statistics, but the results follow larger statistics,*

(Continued on Page 496)

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REHABILITATION REPORTS HEMIPLEGIC CASES

(Continued from Page 494)

which have shown that 90 per cent of hemiplegics may benefit greatly from rehabilitation services, especially when started early. Age is no contraindication, as our oldest patient was 89 years of age and recovered after 8 days. Only one patient, who had been through rehabilitation at another place, could not be improved further, except for repair of the brace and correction of gait pattern. The real value of this preliminary study can only be seen by rechecking the patients after a year, when it might be possible to evaluate, if the obtained rehabilitation result has been maintained.

Summary

This is a preliminary report of ten rehabilitation cases with hemiplegic symptoms within a period from May 1961 to January 1962 at the Allegan Health Center in the new Rehabilitation Department.—J. D. Hemriksen, M.D., Consultant in Physical Medicine and Rehabilitation

Acknowledgment

I would like to acknowledge the valuable assistance in this rehabilitation program by Mrs. Nelle F. Morris, Social Worker; Mrs. Amy Bassett, Director of Nurses; Mr. Gordon Kober, Physical Therapist; Mrs. Ruth Popp, Occupational Therapist.

Reference

1. Lowenthal, J. S. Tobis and Howard, I. R.: An analysis of the Rehabilitation needs and prognosis of 232 cases of Cerebral Vascular Accident. Archives of Physical Medicine and Rehabilitation, Vol. 40, No. 5, P. 183, May 1959.

Ingham Chapter to Host MSMAS Presidents Conference

Ingham County Medical Assistants will host the semi-annual Presidents Conference of the Michigan State Medical Assistants Society Sunday, May 6, 1962, at the Capital Park Motor Hotel, Lansing.

All state and component society officers and committee chairmen are urged to attend.

A program on rehabilitation has been planned with special emphasis on the efforts of Lansing physicians and hospital physical medicine departments to return disabled persons to useful productive activity more quickly and efficiently.

Further information may be obtained from Chairman, Mrs. Marguerite Woolhouse, 320 Townsend, Lansing.

Wayne State University Medical Library

(*Editor's Note:* Some months ago the question of reference medical library availability arose. We published an article about the library at University of Michigan. We inquired about Wayne State College of Medicine. Here is the reply.)

The Library at Wayne State University's College of Medicine was not designed to be a translation laboratory—it just worked out that way.

Although the staff is only composed of six persons —including clerical help—there are eight languages spoken in addition to English and Latin.

Vern M. Pings, medical librarian, reports that his staff members have a working knowledge of German, French, Italian, Hungarian, Polish, Russian, Ukranian and Spanish. In addition, Dr. Pings, who spent five years in the Middle East, knows Arabic.

"Although we don't do translation as a part of our regular duties because of the small size of our staff, we do help out occasionally when someone is having trouble with one of our foreign journals."

The library, which has changed hands several times in its 86-year history, is now housed in the first three floors of the College of Medicine's Clinical Research Building located a block north of Detroit's Receiving Hospital.

"Any physician is welcome to use the library," Dr. Pings stressed. "The only thing we ask is that he register with us and abide by our regular rules. Because of staff and space, we are forced to limit our mail and telephone requests to persons who work through recognized organizations and societies."

He cited a study recently completed by Scott Adams, associate director of the National Library of Medicine, which stated that the cost of setting up a state-wide lending service to individual physicians would approximate $32,000 annually.

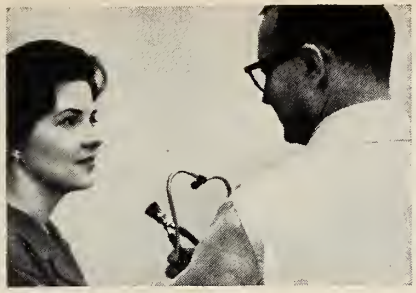
"Obviously without significantly increased funds we would not be able to undertake any program of servicing individual physicians even though the need definitely exists now.

"Our collection is just not large enough to physically serve many more persons than it does now," Dr. Pings stressed.

The collection, which dates from 1819, was originally brought together in 1876 by the Detroit Medical and Library Association. The Detroit Public Library took over part of the works in 1885 and the remainder in 1896.

The Wayne County Medical Society, which had merged with the Detroit Medical and Library Association, reacquired the collection in 1910. The Medical Society transferred title of its library back to the

(Continued on Page 498)



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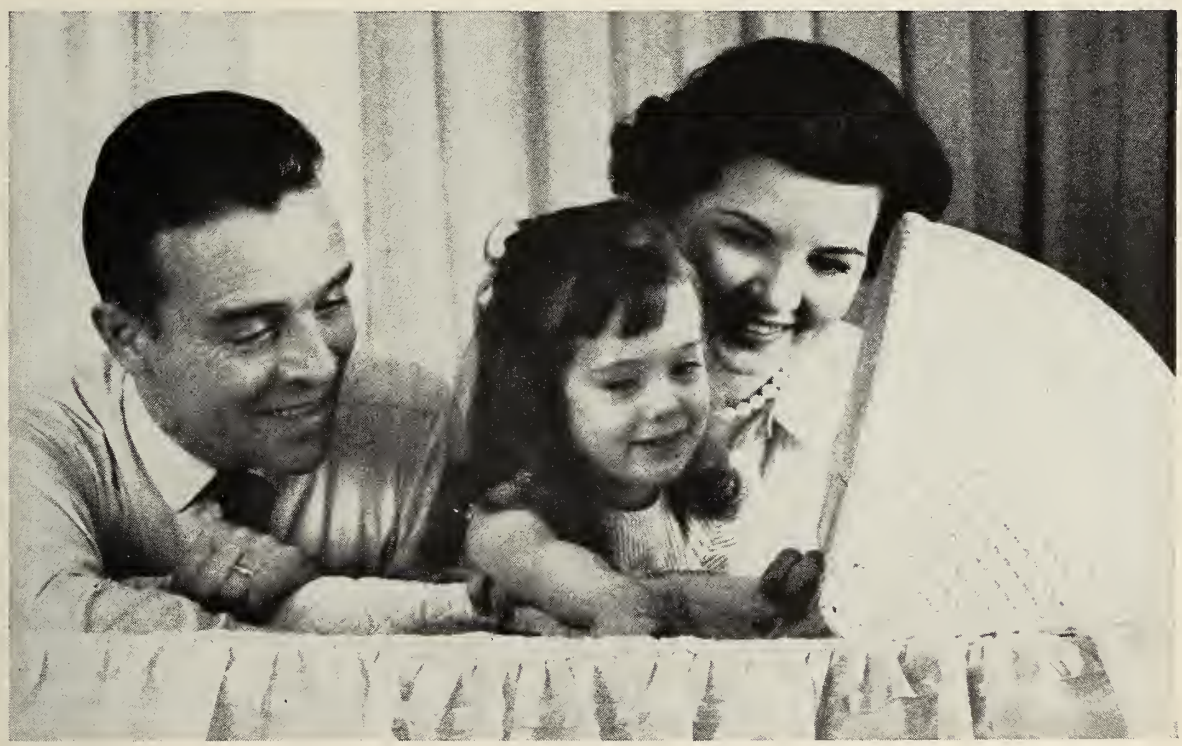
The new baby is beautiful, but his arrival raises some problems in family planning on which the mother will need help — *your* help. What you counsel or suggest to her may determine the family's happiness for many years to come. When she comes in to see you for her routine postnatal check-up, you have an ideal opportunity to counsel her and answer her questions. It's also an ideal time to recommend the use of Lanesta Gel.

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*Gamble, C.J.: Am. Pract. & Digest. Treat. *11*:852 (Oct.) 1960. See also Berberian, D.A., and Slighter, R.G.: J.A.M.A. *168*:2257 (Dec. 27) 1958; Kaufman, S.A.: Obst. and Gynec. *15*:401 (March) 1960; Warner, M.P.: J.Am.M. Women's A. *14*:412 (May) 1959.

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WAYNE STATE UNIVERSITY MEDICAL LIBRARY

(Continued from Page 496)

Detroit Library Commission in 1923 because it could not provide space or support it.

Miss Marjorie J. Darrach was appointed librarian and remained in charge of the collection until her retirement in 1961. Dr. Pings became librarian then.

In 1927 the library was moved to its present quarters and the collection was transferred to Wayne State in 1949. Present plans call for it to be moved to the new University Medical Center near the main campus.

AMA Auxiliary Planning Extensive Chicago Meeting

A special program for all doctors' wives—featuring a report on current affairs in the nation's capital and tips on "guarding your husband's health"—will be presented during the 39th annual convention of the Woman's Auxiliary to the American Medical Association to be held in conjunction with the AMA annual meeting, June 24-28, in Chicago. Auxiliary headquarters will be the Hotel Pick-Congress.

All Auxiliary members, their guests and guests of physicians attending the AMA annual meeting may participate in the social functions and attend the Auxiliary general meetings.

Dental Journal Editorial Stresses Postgraduate Education

(Excerpts from Editorial by Editor William E. Brown, Jr., D.D.S., in March 1962 issue of The Journal of the Michigan State Dental Association.)

"Since the Annual Meeting of the Michigan State Dental Association appears on the near horizon, it seems appropriate to comment at this time on the need for continuing professional education at the postgraduate level. Much has been written in recent months about the disparity between the 'need' and the 'demand' for dental care. Whereas the need for oral health care by the people of the United States has reached gigantic numbers, the demand for such care is disappointing.

"Much the same can be said regarding the differences between the need and demand for postgraduate education. Although the need for continual study is universal among dentists, a relatively small percentage actually makes an effort to secure it.

"After a tedious day at the office, it is difficult for many to read and study comprehensive, scientific material. Hence, it would seem advantageous to make the most of other opportunities. Annual state meetings provide one such possibility. However, lectures and clinics delivered at professional meetings usually touch on only the high spots of a subject, and one must search further to learn all of the important, intimate details. To this end, postgraduate courses or seminars provided by dental schools and other groups play an essential role. The practice of attending at least one such course each year makes good sense.

"Continual study is a necessity if one is to maintain and improve his service to the public, and it instills enthusiasm with which one can surmount the various petty problems that tend to make daily living a burden."

M.D. Placements Reported

Three M.D.s found locations through the Michigan Health Council M.D. Placement Service in November and December of 1961. This is an addition to the five placements previously reported in the last quarter of 1961.

So far in 1962 one placement each has been recorded in January and February.

William E. Greenway, M.D., established a practice in association with F. L. Troost, M.D., of Holt, in November 1961. The December placements included Ellsworth E. Klahr, M.D., and Cesar Colon-Bonet, M.D., who established practices at Nankin Hospital, Wayne, and Sunshine Hospital, Grand Rapids, respectively.

In January, Elizabeth H. Reeves, M.D., accepted a position at the Oakland County Tuberculosis Sanatorium at Pontiac. Donald V. Mason, M.D., established a pediatric practice in Kalamazoo.

Wayne Seeks Federal Help

Wayne State University's Board of Governors recently authorized the application for a $12,000,000 grant for construction of an $18,000,000 teaching facility for the College of Medicine.

Gordon H. Scott, Vice President for Medical College Development and Dean of the College of Medicine, reports the facility would enable the University to double the annual size of its medical class from 100 to 200 students.

The federal funds, on a two-thirds matching basis, will be sought under legislation under consideration in Congress. The Michigan Legislature has already given informal support to the program.

The new facility, if approved, would be constructed in the new University Medical Center in an area bounded by St. Antoine, Beaubien, Willis and Canfield near five hospitals. A $3,000,000 medical research building has already been approved for the same area with construction set to begin this summer.

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Letters to the Editor

The Editor will be glad to receive and consider for publication letters containing information of general interest to physicians throughout the State or presenting constructive criticisms on controversial issues of the day.

To the Editor:

I was very pleased to read Dr. Owen's editorial in the January 29 Medical News pointing to the stake practicing physicians have in keeping the cost of medical services within the most economical limits compatible with good care. It is notable that Dr. W. B. Harker, president-elect of the Pennsylvania Medical Society, has recently commented on this subject as follows: "All physicians have a financial interest in health insurance plans and must do their best to make them work. Any other view is intolerable."

It seems unbelievable to me that experts have recently predicted the average daily cost of hospital care will have risen to $56 per day by 1970. If this prediction is borne out what will then be the cost of Blue Cross on which so much of our future independence rests? I am reminded that thirty-five years ago when I began practice and very few patients had much sickness insurance and certainly not hospital insurance, we heard plenty from them when excessive tests and procedures ran the hospital bill to astronomical figures. There is now no such check to remind us of this problem for as a rule neither the doctor nor patient understands the exact figures in the hospital bill.

I have recently become very much interested in the cost of laboratory studies on hospitalized patients and have found a few very interesting figures from various sources that seem to me important. For example, in one hospital which has even had a slight decrease in beds occupied in the past ten years, I found that 25,000 laboratory tests were processed in 1951 but 97,000 tests in 1961. I am told that too many duplicate laboratory tests are often ordered on the very first day of hospitalization. As examples both a blood urea nitrogen and blood creatinine are ordered when the blood urea nitrogen is normal, or both lactic dehydrogenase and transaminase are ordered daily for several days. In one hospital, again with no increase in beds, there was an average of 400 EKGs ordered per month six years ago but by 1960 it had risen to 500 and is now running at around 700 per month. I have personally seen daily EKGs ordered for many days in cases of acute coronary thrombosis that presented no unusual problems. It seems to me that in most instances of acute coronary thrombosis who need anti-coagulation we could start the usual heparin for a few days and so cautiously regulate coumadin that prothrombin time done on only Monday, Wednesday and Friday would be adequate control for the period of hospitalization.

Dr. D. M. Young, Director of Laboratories, Toronto General Hospital, at the University of Toronto, recently reported as follows: "In 1956 when a reliable protein bound iodine test was available we did 1,100 such tests at the Toronto General Hospital with 44 per cent normals. In 1960 we did 6,000 such tests with 90 per cent normals. I cannot believe," says Doctor Young, "that significant thyroid pathology was missed any more in 1956 than in 1960 when so many more tests were done."

I have been told by two of the medical directors of large corporations who furnish yearly executive examinations to their top management group on which so much depends, that in a good many clinics it is unusual to receive a fee for this periodic health evaluation under $500. A recent single example of a case in another category hospitalized in Detroit, that was brought to my attention was disturbing to me. This case required some study for quite routine problems and then abdominal surgery. His stay was 16 days and his daily average cost for the 16 days was $98.00. This included $508 for laboratory services, $150 for EKGs, $336 for drugs and operating room expense and nearly $200 for X-ray studies. As I analyzed the tests done in this case I could not personally justify more than a fraction of the tests done. Recently I was able to analyze some consecutive medical cases in which the bills were going to Blue Cross from one of our very best hospitals. The average per diem costs of a few of them, including room, laboratory fees, drugs and EKGs was as follows:

Case 1. 40 days hospitalization average cost $40.00.
Case 2. 47 days average cost $40.00.
Case 3. 27 days average cost $44.00.
Case 4. 16 days average cost $38.00.
Case 5. 12 days average cost $37.00.

These were all ward or semi-private facilities. In another hospital, somewhat less of a teaching hospital, the average costs are $3 to $5 per day less. In both these hospitals the average costs I have cited I consider fairly reasonable, but I am convinced the evidence of the $50 to $100 per day examples are by no means a rarity and only by constantly emphasizing the importance of these economic facts to our house staffs and to the younger physicians who have perhaps been unaware of the problem, can corrections be made and that $56 per day prediction for 1970 be avoided.

Warren B. Cooksey, M.D.
in *Detroit Medical News*,
February 12, 1962

(*Editor's Note*: This letter is copied from the *Detroit Medical News* because of its extreme importance, and the masterful way Dr. Cooksey has responded.)

•

G. B. Saltonstall, M.D.
John W. Sigler, M.D.
Michigan Clinical Institute
120 West Saginaw Street
East Lansing, Michigan

Dear Drs. Saltonstall and Sigler:

This is not only to acknowledge your thoughtful letter of March 14 regarding the part we played at the recent Conference for Residents-Interns-Medical Students but to also express our deep appreciation for being permitted to participate in this and past programs.

Nothing has ever happened that has given me more personal pleasure than participating in this and the other 12 such programs which we attend each year. Without question, I feel these programs are good for the pre-practicing physicians and also are goodwill builders for the medical organizations which sponsor them. Incidentally, without the good help of Doctor Bromme and Bill Burns these programs could not be nearly so good.

Thank you so much for writing and with best wishes always, I am

Cordially yours,
MEAD JOHNSON LABORATORIES
Harvey C. Hallum
Director, Professional Affairs

Brief and to the Point

CITED FOR SERVICE—Rudenz Douthat, M.D., was honored recently by the Saline Junior Chamber of Commerce as its "Distinguished Young Man of the Year." Doctor Douthat was cited for his many community efforts as city health officer, Washtenaw county deputy medical examiner, secretary of Washtenaw Society of General Practitioners, and active in the Saline Area Civic Association.

* * *

SELECTED AS LEADER—D. Bonta Hiscoe, M.D., Lansing, was elected recently as president of the Greater Lansing Visiting Nurse Association.

* * *

GETS 20-YEAR HONOR—Harold T. Donahue, M.D., Cass City, recently was given a certificate of appreciation for 20 years of service as medical advisor for the thumb area Selective Service Board.

* * *

NATIONAL LEADER—E. C. Swanson, M.D., of Vassar, is the new president-elect of the Federation of State Medical Boards of the United States, selected recently at the 58th annual meeting of the group in Chicago.

* * *

ECONOMIST NAMED—T. Donald Rucker, director of the Detroit Board of Commerce department of economics and research, has been named senior economist for Michigan Medical Service.

* * *

NEW WSU AFFLIATION—The Wayne State University College of Medicine has a new affiliation with the Child Research Center of Michigan. Gordon H. Scott, M.D., vice president for medical college development and dean of the College of Medicine, reports the agreement cements an informal relationship dating back to 1954 "in research in the cause, control, cure and prevention of disease in children."

* * *

STUDY OAA CASES—A study of the administration of OAA care in the nation will be undertaken by the University of Michigan School of Public Health under a $150,000 grant from the National Institutes of Health. Investigators in the U-M Bureau of Public Health Economics will try to determine why "comprehensive" OAA health programs show widely varying degrees of use in different states. The findings will be of interest in future legislation shaping hospitalization programs for the aged. The study may also have implications for the future of Blue Cross and Medicare programs.

(Turn to Page 508)





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(Continued from Page 501)

REHAB INSTITUTE—The National Institutes on Rehabilitation and Health Services (NIRHS) will cooperate with the University of Michigan to conduct a National Institute on Rehabilitation and Workmen's Compensation June 11-13, in Ann Arbor. Institute participants will include about 120 outstanding authorities from the fields of vocational rehabilitation, medicine, law, insurance, labor, management and workmen's compensation administration.

* * *

"HOMER" HONORED—Homer, a two-year-old hound living at The University of Michigan Medical Center, whose left lung was replaced with that of another dog last May, has been honored as a dog hero by the National Society for Medical Research, Rochester, Minnesota. He will receive a silver medal for his assistance in testing a new technique for transplanting vital human organs.

* * *

ELECTED—At the recent meeting of the Law-Science Academy of America in Austin, Texas, M. K. Newman, M.D., Detroit, was elected vice-president of the organization. He presented the following papers: (1) Preparation and Trial of Cervical Strain and Sprain Cases, (2) Evaluation of Fact and Degree of Pain as Demonstrated by Electromyography, (3) The Limitations and values of Electromyography, (4) Physical Medicine and Rehabilitation to Minimize Joint Injuries, (5) Contributions and Limitations of Physical Medicine in Personal Injury Cases.

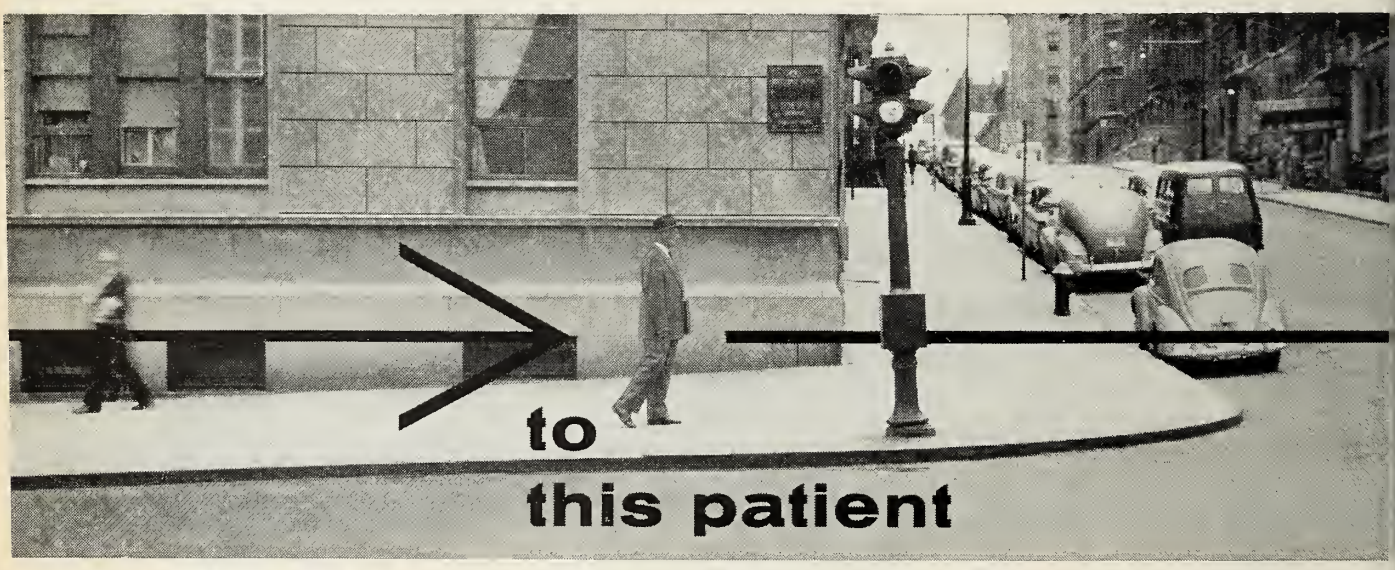
ELECTED TO FELLOWSHIP—The American College of Radiology at its 38th Annual Meeting, February 7-10, in New York City, elected to fellowship the following Michigan Doctors: William D. Cheney, Lansing; William R. Eyler, Detroit; Leo S. Figiel, Grosse Pointe; Steven J. Figiel, Detroit; Benjamin R. Van Zwalenburg, Grand Rapids; Edwin M. Wright, Saginaw; and to Associate Fellowship, Lucille A. DuSault, Detroit.

* * *

SPORTS MEDICINE NEWSLETTER—"Medicine in Sports," a newsletter devoted exclusively to reporting the latest information on the care and prevention of athletic injuries, is now being distributed to all physicians interested in the subject as a professional service by the Rystan Company, Mount Vernon, N. Y. Physicians interested in receiving this publication may write to Charles Stanton, Editor. Medicine in Sports, c/o Rystan Company, 7 North MacQuesten Pkwy., Mount Vernon, N. Y.

* * *

CARE—MEDICO JOIN FORCES—Two international aid agencies—CARE, which sends food and self-help supplies abroad, and MEDICO, founded to serve as "physicians to the world"—have joined forces. MEDICO, co-founded by Peter D. Comanduras, M.D. and the late Dr. Tom Dooley, will operate as a service of CARE. It will continue to send teams of American doctors, nurses and technicians overseas to augment medical and clinical health services, training and education. CARE will assume administrative responsibilities and provide material support.



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OFFER CANCER HELP—A new cancer education program called "Dial-To-Life" has been implemented by the American Cancer Society in the Detroit area. Through this service residents of Wayne, Oakland and Macomb counties may now pick up their phone, dial TR. 2-4666, and listen to life-saving information about cancer.

* * *

WAYNE COURSES—The 90 courses offered this spring by Wayne State University's Applied Management and Technology Center includes one in "Psychological Aspects of Health" taught by John M. Dorsey, M.D., Detroit. Dr. Dorsey, for 15 years chairman of the department of psychiatry at the WSU College of Medicine, designed his course to aid businessmen bear up under executive responsibilities and to safeguard their health.

* * *

CHOSEN—Jackson E. Livesay, M.D., Flint, was elected a Chancellor of the American College of Radiology at the group's annual convention in New York City. As Chancellor, he sits on the College governing body for a four-year term. He is completing three years' service as College Councilor from Michigan.

* * *

CONFIRMED by the State Senate as appointees to the Michigan Advisory Council of Tuberculosis Sanatoriums were Paul T. Chapman, M.D., and Winthrop N. Davey, M.D., of Ann Arbor. Dr. Davey was elected chairman.

NAMED HISTORIAN—Sidney Friedlaender, M.D., Detroit, was re-elected historian of the American Academy of Allergy in Denver.

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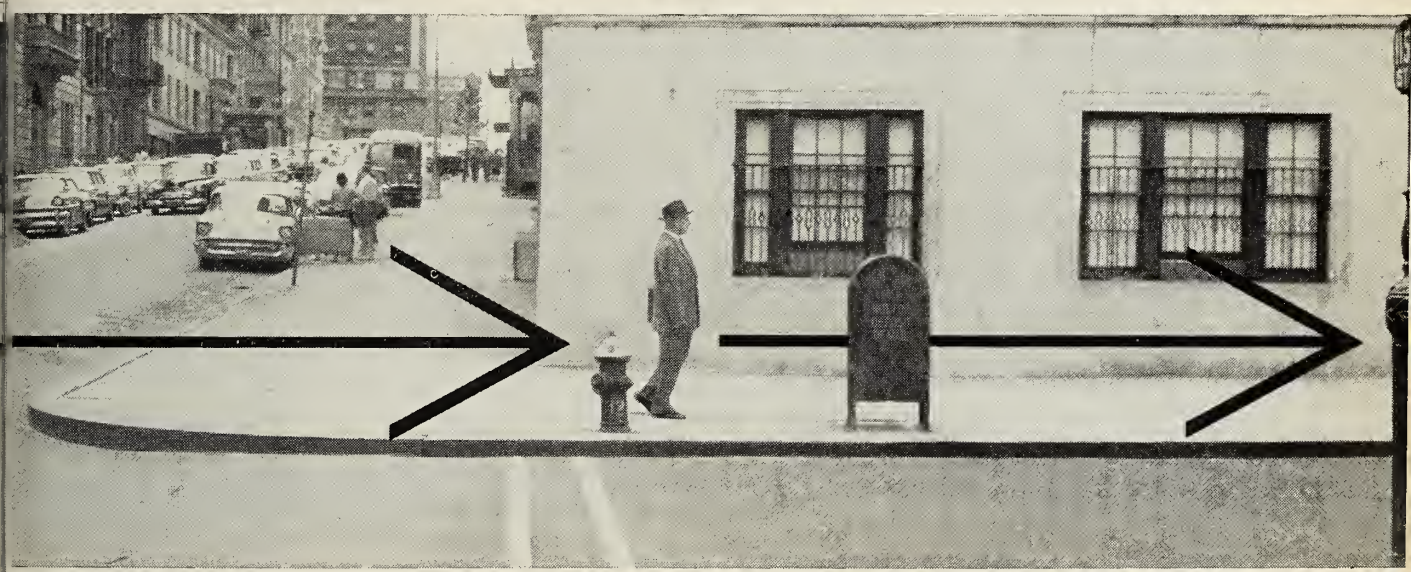
EXAM TIME—Applications for certification in the American Board of Obstetrics and Gynecology, new and reopened, for the 1963 Part I Examinations are now being accepted. The deadline date for receipt of applications is July 1, 1962. Address inquiries to Robert L. Faulkner, M.D., Executive Secretary, American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6.

* * *

CAMP PLANNED—The summer camp for diabetic children will be conducted for the fourteenth year by the Chicago Diabetes Association, July 15 through August 5, at Holiday Home, Lake Geneva, Wisconsin. Boys and girls from eight through fourteen are eligible. Inquiries should be directed to Chicago Diabetes Association, 620 North Michigan Avenue, Chicago 11, Illinois.

* * *

SCHIZOPHRENIA RESEARCH—In a move to stimulate research into schizophrenia, the Stanley R. Dean Award has been established through the University of Michigan Mental Health Research Institute. The $2,000 award will be given annually to an American scientist who has made a major contribution to basic research on schizophrenia. The new award is named for Stanley R. Dean, M.D., a



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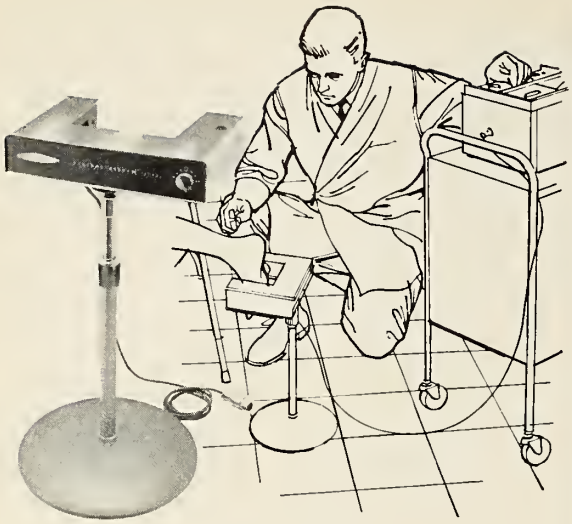
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graduate of the U-M Medical School and a Fellow of the American Psychiatric Association.

MEETINGS U.S.A.

May

American Nurses' Association, Detroit, May 14-18. Mrs. Judith G. Whitaker, RN, 10 Columbus Circle, New York 19, Executive Secretary.

American Ophthalmological Society, The Homestead, Hot Springs, Virginia, May 28-30. Joseph A. C. Wadsworth, M.D., 108 E. 68 St., New York 21, N. Y., Executive Secretary.

American Pediatric Society, Traymore Hotel, Atlantic City, May 10-11. Conrad M. Riley, M.D., 2800 East Cedar Avenue, Denver 9, Secretary.

American Urological Association, Bellevue-Stratford Hotel, Philadelphia, May 14-17. Mr. William P. Didusch, 1120 N. Charles St., Baltimore 1, Executive Secretary.

Illinois State Medical Society, Hotel Sherman, Chicago, May 13-17. Mr. Robert L. Richards, 360 North Michigan Avenue, Chicago 1, Executive Administrator.

Ohio State Medical Association, Neil House, Columbus, May 13-17. Mr. Charles S. Nelson, 1005 Hartman Theater Building, 79 East State St., Columbus 15, Executive Secretary.

Student American Medical Association, Mayflower Hotel, Washington, D. C., May 9-13. Mr. Russell F. Staudacher, 430 North Michigan Avenue, Chicago 11, Executive Director.

Wisconsin State Medical Society (AMA members and society members only), Schroeder Hotel, Milwaukee, May 8-10. Mr. Charles H. Crownhart, 330 East Lakeside St., Madison 5, Secretary.

June

American College of Chest Physicians 28th Annual Meeting, Morrison Hotel, Chicago, June 21-25. Murray Kornfeld, Executive Director, 112 East Chestnut St., Chicago 11.

American Diabetes Association, Inc., The Conrad Hilton, Chicago, June 23-24. J. Richard Connelly, 1 East 45th St., New York 17, Executive Director.

American Geriatric Society, Palmer House, Chicago, June 18-20. Edward B. Allen, M.D., 21 Greenridge Avenue, White Plains, New York, Secretary.

American Medical Association, Annual Meeting, Chicago, June 24-28. F. J. L. Blasingame, M.D., 535 North Dearborn, Chicago 10, Executive Vice-President.

Medical Library Association 61st Annual Meeting, Sheraton-Chicago Hotel, Chicago. Donald Washburn, D.D.S., American Dental Association, 222 East Superior St., Chicago 11, Convention Chairman.

Women's Auxiliary to the American Medical Association, Pick-Congress Hotel, Chicago, June 24-28. Miss Margaret N. Wolfe, 535 North Dearborn St., Chicago 10, Executive Secretary.

September

The Twelfth International Congress of Dermatology, Washington, D. C., September 9-15. Charles S. Livingood, M.D., Detroit, Secretary.

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MICHIGAN MEDICAL MEETINGS AND CLINIC DAYS

May 2—Wayne State University Clinic Day and Alumni Reunion, Detroit.

June 15-16-17—Upper Peninsula Medical Society Meeting, The Gateway, Land O'Lakes, Wisconsin.

July 26-27—Coller-Penberthy Clinic at Traverse City.

September 23-24-25—MSMS Annual Session, Sheraton-Cadillac Hotel, Detroit.

Michigan Authors

John Woodworth Henderson, M.D., Ann Arbor, "Differential Diagnosis," *Transactions, American Academy of Ophthalmology and Otolaryngology,* November-December, 1961.

Jack Lapides, M.D., Charles R. Friend, M.D., Edward P. Ajemian, M.D. and **William Reus, M.D.,** Ann Arbor, Michigan, "Denervation Supersensitivity as a Test for Neurogenic Bladder," *Surgery Gynecology and Obstetrics,* February, 1962.

Edward P. Ajemian, M.D., John R. Lichtwardt, M.D., J. E. Gonzalez, M.D. and **Jack Lapides, M.D.,** Ann Arbor, "Technique for Avoiding Stricture Following Urethral Meatotomy," *Journal of Urology,* 86:340, 1961.

Joe M. Abell, Jr., M.D., Ann Arbor, "Perplexing Plant," *The New Physician,* February, 1962.

Melvin L. Selzer, M.D., Ann Arbor, "Alcoholism: Diagnostic Considerations," *Industrial Medicine and Surgery,* October, 1961.

Charles E. Payne, M.D. and **Melvin L. Selzer, M.D.,** Ann Arbor, "Traffic Accidents, Personality and Alcoholism: A Preliminary Study," *The Journal of Abdominal Surgery,* January, 1962.

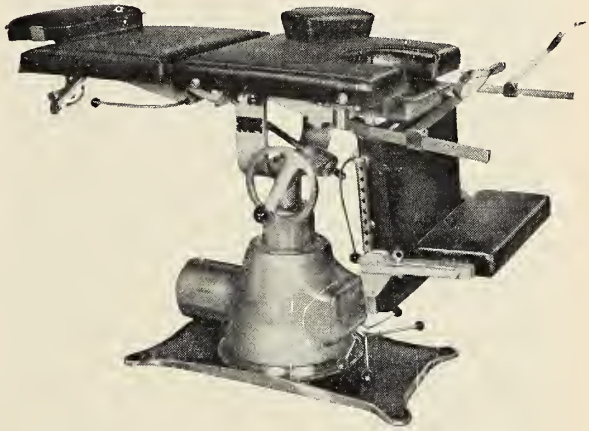
Charles G. Child, III, M.D. and **Donald R. Kahn, M.D.,** Ann Arbor, "Current Status of Therapy of Pancreatitis," *Journal American Medical Association,* February 3, 1962.

Irving I. Edgar, M.D., Detroit, "Amariah Brigham, Isaac Ray and Shakespeare," *The Psychiatric Quarterly,* October, 1961.

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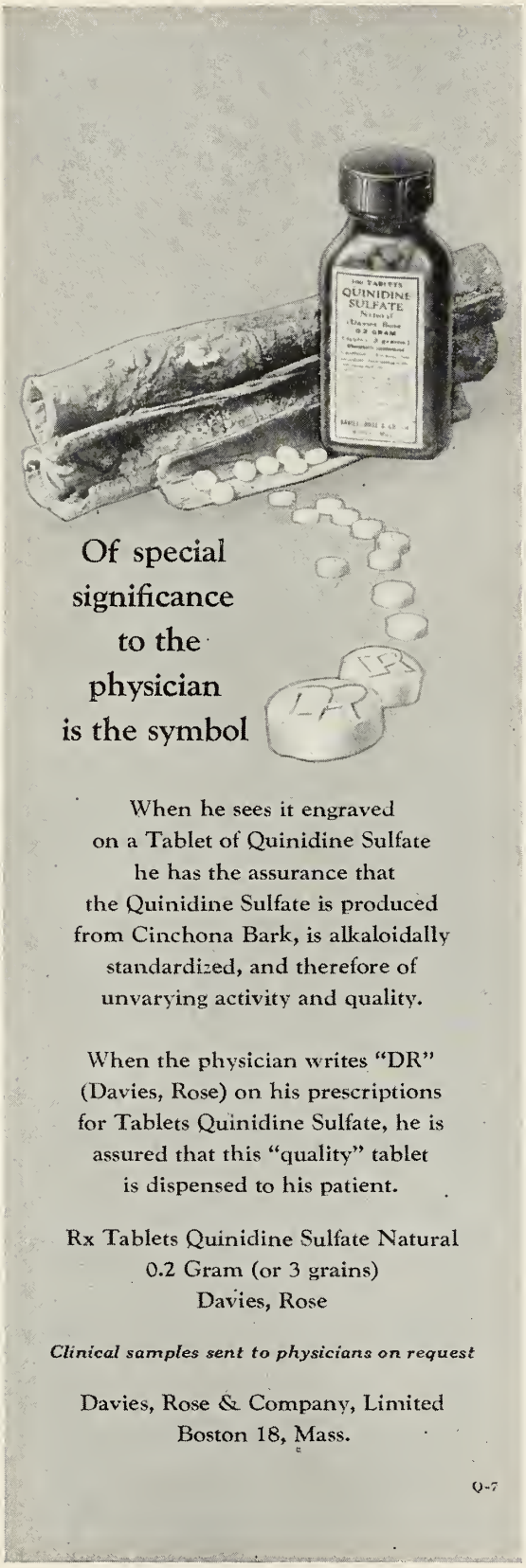
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IN MEMORIAM

MILO J. BRADY, M.D., 66, St. Clair Shores practitioner since 1937, died February 15, 1962. He had practiced in the Detroit area since 1922.

A graduate of Tulane University, he was on the staff of Saratoga General Hospital and St. Joseph Hospital, Mt. Clemens. Memberships included the Detroit Pediatric Society and the Boston Children's Hospital Alumni Association.

NORMAN K. H'AMADA, M.D., 69, Detroit physician since 1921, died February 17, 1962.

A graduate of the Detroit College of Medicine, Doctor H'Amada was chief of staff of Providence Hospital in 1947. He was a member of the American College of Surgeons, Detroit Surgical Society, Detroit Academy of Surgery, and the American College of Obstetrics and Gynecology.

EMILY R. HAUTAU, M.D., 56, East Lansing, medical program assistant in the Michigan Department of Health's Maternal and Child Health Division, died February 15, 1962.

Doctor Hautau had been with the health department since July, 1957. Prior to that she had served as director of the Midland County health department for 10 years. She first joined the State Health Department as a field physician in 1937, and remained in that capacity until 1942.

She was graduated from the University of Minnesota Medical School in 1934, and received a master of public health degree in 1939 from the Harvard School of Public Health. Memberships included the American Public Health Association and Delta Zeta and Alpha Epsilon Iota sororities.

WELLINGTON B. HUNTLEY, M.D., 75, former physician at Southern Michigan Prison, died January 30, 1962, in St. Petersburg, Florida. Doctor Huntley retired about 12 years ago.

Before being named to the staff at Southern Michigan Prison, Doctor Huntley was physician at the Ionia State Reformatory. Prior to that he had been in private practice in Hudson and had been director of the Lenawee tuberculosis sanatorium.

THEODORE J. KESKEY, M.D., 57, Wakefield, died January 14, 1962.

A graduate of the medical school at the University of Minnesota, Doctor Keskey served his internship at St. Luke's Hospital, Milwaukee. He served as a Captain in the United States Medical Corps until ill health forced his retirement in 1943.

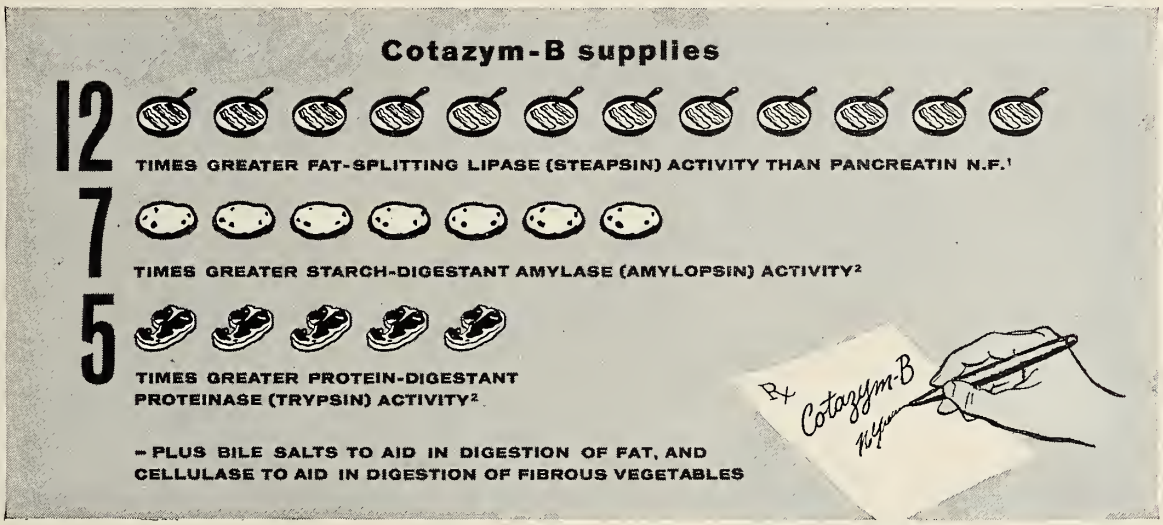
NORMAN O. LA MARCHE, M.D., 69, Detroit area doctor for 43 years, died February 12, 1962.

A graduate of the Detroit College of Medicine (now Wayne State University College of Medicine), in 1919, Doctor LaMarche was on the staff of St. Joseph's Mercy Hospital and Ardmore Hospital. He was an executive member of the Oakland County Crippled Children's Society.

(Continued on Page 514)

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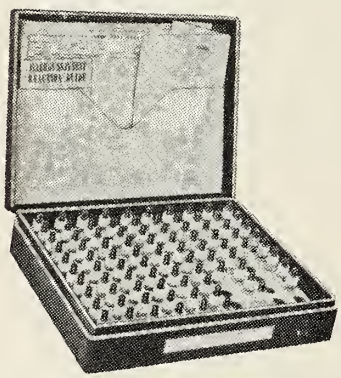
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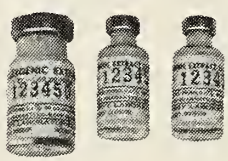
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(Continued from Page 512)

ELMER G. McCONNELL, M.D., 78, retired Lansing physician, died February 1, 1962.

Doctor McConnell, who retired from practice in 1934, moved to Lansing 42 years ago. He was medical officer from the 119th Field Artillery of the Michigan National Guard from 1921 to 1934, when he retired as a major.

A 1909 graduate of the University of Michigan Medical School, Doctor McConnell was a general practitioner with special interest in obstetrics and gynecology. He was a member of the Lansing Board of Health from 1929 to 1934.

PLINN F. MORSE, M.D., 76, director of laboratory and research at Detroit's Harper Hospital for 45 years, died February 18, 1962.

A 1909 graduate of the University of Michigan Medical School, Doctor Morse was a specialist in pathology and was a Founding Fellow of the American College of Pathology. Memberships included Alpha Kappa Kappa, Sigma Xi, American Society of Clinical Pathologists, International Academy of Pathology, Detroit Academy of Medicine and American Association of Pathology and Bacteriology. He was a Life Member of the Michigan State Medical Society.

GLENN A. PEARSON, M.D., 53, Grand Rapids ophthalmologist and otolaryngologist for 18 years, died February 17, 1962.

Doctor Pearson received his M.D. degree from the University of Kansas and practiced in Kansas and Oklahoma before coming to Grand Rapids in 1944. He was on the staffs of Blodgett Memorial and St. Mary's hospitals. Memberships included the American Academy of Ophthalmology and Otolaryngology and Delta Tau Delta fraternity.

JOHN REID, 79, East Lansing, Honorary Member of MSMS, died February 5, 1962.



Commissioner of the state labor department from 1949 to 1957, Mr. Reid served as a Republican member of the Michigan unemployment compensation commission from 1937 to 1948, and was a member of the committee which drafted the original state unemployment compensation bill. He was secretary-treasurer of the Michigan Federation of Labor from 1935 to 1948.

Mr. Reid was elected to honorary membership in the Michigan State Medical Society by the 1961 House of Delegates.

ROBERT R. STERLING, M.D., 57, Detroit physician for 32 years, died February 9, 1962.

A 1929 graduate of the University of Iowa Medical School, he interned at Grace Hospital and was on its staff as well as the staff of Beaumont Hospital. He was a member of the American College of Gastroenterology.



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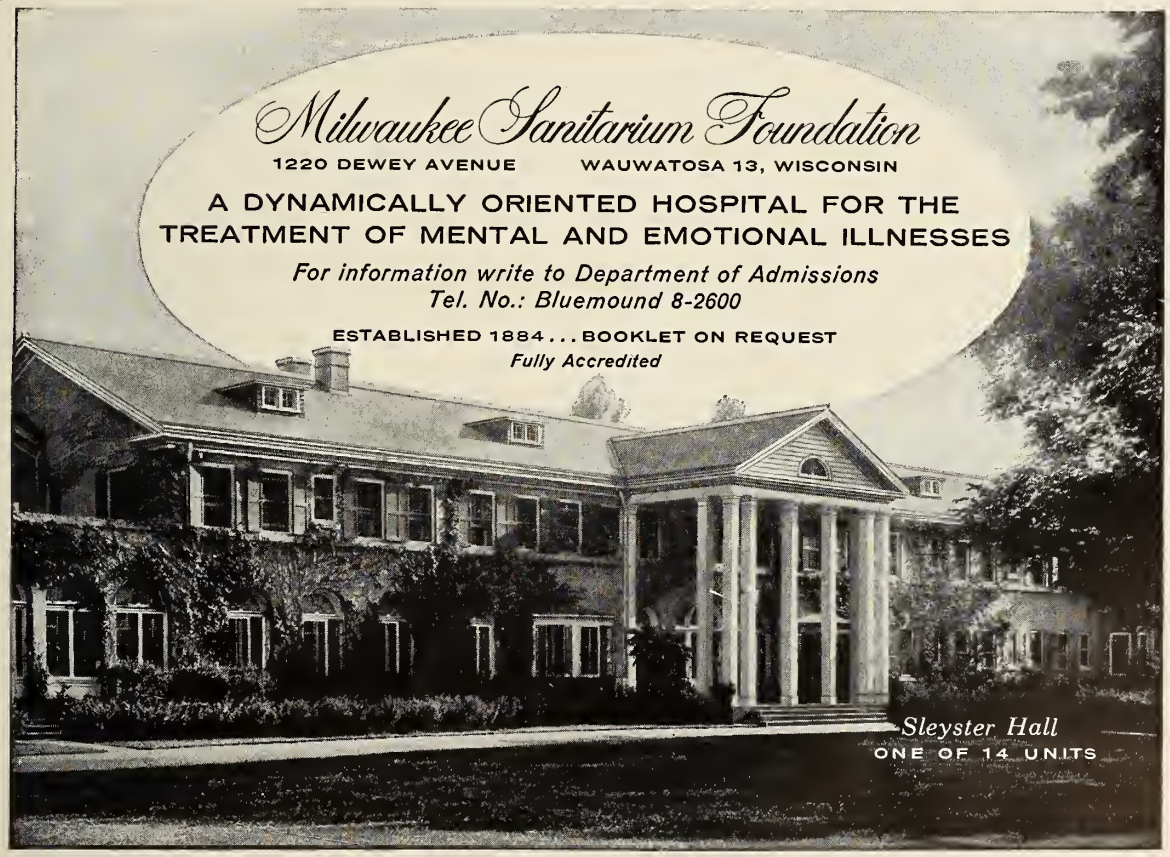
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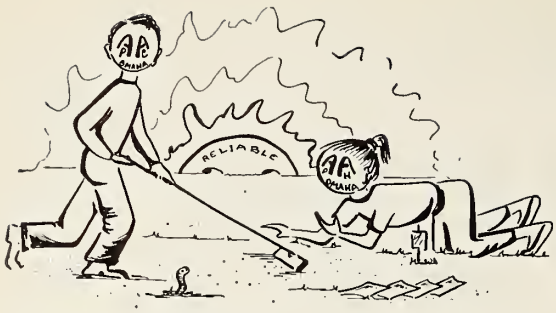
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Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

PREVENTIVE MEDICINE IN WORLD WAR II (Medical Department, United States Army). Volume V—COMMUNICABLE DISEASES TRANSMITTED THROUGH CONTACT OR BY UNKNOWN MEANS. Prepared and published under the direction of Lieutenant General Leonard D. Heaton, The Surgeon General, United States Army. Editor in Chief Colonel John Boyd Coates, Jr., MC Editor for Preventive Medicine Ebbe Curtis Hoff, Ph.D., M.D. Assistant Editor Phebe M. Hoff, M.A. Office of The Surgeon General, Department of the Army, Washington, D. C., 1960.

This is Volume V of a history of a medical department in World War II. A beautifully executed book of over 500 pages, this volume is devoted primarily to communicable diseases transmitted through contact or by unknown beings. The first section discusses Actinomycosis, Epidemic Keratoconjunctivitis, Hookworm, Leprosy, et cetera, to skin infections, fungus diseases, Scabies up to venereal diseases. Then there is the part of the Zone of the Interior, European Theater of Operations, North African Theater. Much attention is given to venereal diseases, and through the whole category of conditions with individual office care, of individual areas of activity and of infection. There are 18 appendix tables, 13 charts, 4 maps, and 73 illustrations. These are very well done and give a clear picture. The book is a complete exposition of the contagious and infectious diseases with which the army must contend and did contend, giving a historic and chronological picture including the North African and Mediterranean operations as well as the European. The viral diseases received a great deal of interest as well as infectious hepatitis. Poliomyelitis is extensively covered. It's a most complete and exhaustive presentation from the chronological and historic standpoint covering practically every infectious disease and condition where they exist, and their treatment and control. It is for sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. Price $5.75.

INTERNAL MEDICINE IN WORLD WAR II, MEDICAL DEPARTMENT, UNITED STATES ARMY. VOLUME I. ACTIVITIES OF MEDICAL CONSULTANTS. Prepared and published under the direction of Lieutenant General Leonard D. Heaton, The Surgeon General, United States Army. Editor-In-Chief, Colonel John Boyd Coates, Jr., MC Editor for Internal Medicine, W. Paul Havens, Jr., M.D. 880 pages. Washington, D. C.: Office of the Surgeon General Department of the Army, 1961. Price, $7.50.

This book compares in appearance and value and content with previous issues of the series of books on war medicine.

NEW AND NONOFFICIAL DRUGS. An annual compilation of available information on drugs, including their therapeutic, prophylactic and diagnostic status, as evaluated by the Council on Drugs of the American Medical Association. 1962. J. B. Lippincott Company. Philadelphia and Montreal.

Editorial Comment

The Beginning of a Larger Fraud

Chicago Tribune, February 28, 1962.

Mr. Kennedy's bill for federal medical care for the elderly under social security was sent to Congress yesterday, cluttered up with a wide variety of other schemes for spending money on everything from air pollution to vaccination. No appraisal of the total cost was offered, but the bill would run into the billions.

The starting cost of the medicare program has been placed at 1 billion dollars in the first year by Secretary Ribicoff of the department of health, education, and welfare. The cost would be met, in theory, by hiking the social security tax on employers and employes by one-quarter of 1 per cent and raising the base of the tax from $4,800 to $5,200.

Mr. Kennedy admitted that medical care is available to the elderly through private health insurance, but contended that the coverage was inadequate. He also conceded that help was extended through public assistance and through the existing Kerr-Mills bill, applying to the "medically indigent." But he said that this kind of help is "less appealing" because it requires a means test and reaches few persons not already eligible under relief.

The kind of "appeal" to which Mr. Kennedy really addresses himself is political appeal, for, as usual, he is shopping for votes. He expects to get them from older people who have not read the fine print of the bill and who are expecting a great deal more than they would get if it were enacted.

The plan has been misrepresented to a degree where it is generally overlooked that it would not cover all persons 65 or over. Only those under social security at the time of their retirement would qualify. Mr. Kennedy made glancing reference to this fact in saying that "direct payments" may be necessary to cover those left out.

Those who do qualify would pay up to $90 for the first nine days in a hospital, and would then receive up to 81 days more of hospital care at federal expense. In a nursing home, they would be allowed a total of 180 days. In a hospital, the patient would receive free care from internes or residents, but if he specified his own doctor, he would pay the fees himself. He would also be required to do so if he were treated by a doctor at home or visited a doctor's office. Should he require surgery, he would also have to pay the surgeon's fee.

In the hospital, medicines would be furnished free, but prescriptions for medical needs at home would be the responsibility of the ailing person.

So much less than comprehensive care would be provided by the government, and, in the nature of things, those who expect their medical cost worries to end would be disappointed. We are fairly sure that the administration is counting on just this reaction, and that the present program is advanced simply to get the federal foot in the medical door.

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nothing were disabused, we could expect a clamor that the government was not meeting its "responsibilities" to the old people, and then there would be a great political pressure campaign to expand services and costs far beyond the initial offering. The rush would be on to convert this beginning into a drive for social medicine, which, predictably, would not then be confined to the elderly, but extended to everyone. This is the way politicians characteristically work.

So this legislation begins as a fraud upon those whom it proposes to afford relief, and the original fraud would be compounded as time went on by the regimentation of the medical profession and the institution of a vastly costly system of public medicine. If doctors can be converted into servants of the bureaucracy, so can everyone else. The virus of coming tyranny lurks in schemes like this.

"*A Pretty Ghastly, Awful Picture*"

British Medical Journal, London, December 9, 1961.

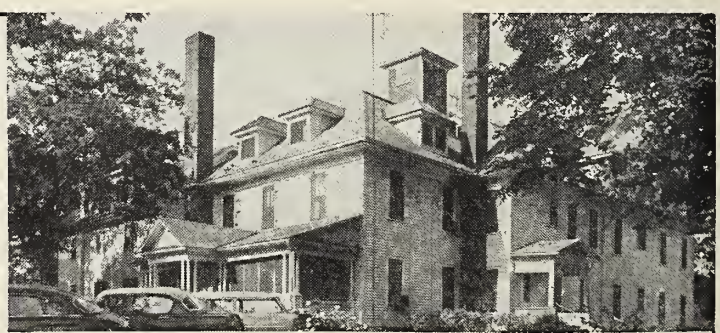
A succession of Ministers of Health and their advisers have been so immersed in the routine of their jobs, or so busy explaining to visitors what a marvellous thing the N.H.S. is, that they and their staffs and the numerous administrators in the Health Service have concealed from each other and the public that medicine in Britain is in a mess.

Last week Lord Taylor, opening a debate in the House of Lords on the growing shortage of doctors, described, in a place not encouraging exaggeration, the present position as "a pretty ghastly, awful picture," and as "a new and desperate situation."

It is difficult to believe that everyone all the time has been unaware of what was happening, yet the recent disclosures in these columns and elsewhere, that, outside the teaching hospitals, the N.H.S. hospitals to a great extent depend for the continuation of their work upon some 4,000 foreign doctors, a large proportion from India and Pakistan, have caused surprise. They do not, of course, come here in order to prevent the N.H.S. hospitals from coming to a standstill, but in order to gain experience and often enough to earn a better living than at home. Both of these are excellent reasons for emigrating from one country to another, and as they come in here we see leaving Britain for other countries British-born doctors with British qualifications. Welcome though the advent of foreign doctors is, we share the view of a prominent Ministry of Health spokesman, that the way they gain experience is the best neither for themselves nor for the British patients who provide them with it. Lord Taylor has backed up his own inquiry the evidence published in the *Journal* of what is happening in the region of the Sheffield Hospital Board. He found, for example, such a state of affairs in mental hospitals as to conclude: "it is very rare indeed that you will find the staff of a mental hospital now is an English or a British staff."

Professors F. Lafitte and J. R. Squire published a paper last year which questioned the findings of the Willink Committee. The Committee underestimated the ratio of growth of the population and also the number of doctors needed. It recommended a cut of 10% in the intake of medical

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students from 1961. As Lord Cohen, in a spirited and subtle defence of the Willink Report in the Lords debate, pointed out, the Committee recognized that many of their assumptions, estimates, and calculations, were speculative. If they were indeed so speculative, then it just shows how in these days everyone can be bemused into acceptance and inaction as a result of the findings of one of these high-powered governmental committees which seem to be symptomatic of the static society which is Britain today. But as Dr. J. R. Seale observes in an article elsewhere in this week's *Journal* (p. 1554) there had been a substantial reduction in the intake of medical schools before the publication of the report. Even if it can have had little effect on the present shortage of doctors it has certainly had its effect upon the way people have been thinking about the Health Service. The majority of the Royal Commission on doctors' pay, for example, thought that recruitment was not a factor to which they need "attach special weight" in making recommendations on current pay. What an incredible state of affairs!

It was only Professor John Jewkes in a Memorandum of Dissent who saw things as they were and not as others wished them to be. He gave a table which suggested that, to quote his words, "perhaps the supply of doctors is not nearly so secure as it might then have appeared."

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May, 1962

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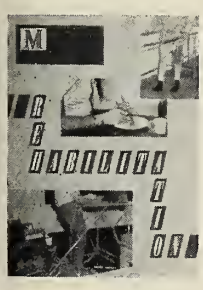
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THE COVER

The cover of this Rehabilitation issue shows how the efforts of the health team can help patients learn again to eat, walk and work.

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1. King, J. C.: Int. Rec. Med. 172:669, 1959. 2. Weiner, L. J., and Bockman, A. A.: Sci. Exhibit, A.M.A., Ann. Meet., New York City, June 26-30, 1961.

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Editorial Comment

How to Amplify Medicine's Voice

Detroit Medical News, January 8, 1962

The second session of the 87th Congress will begin next month and Federal Medical Care for the aged will be a top item of controversy. The failure of the King-Anderson Bill to get out of committee last year has merely increased the propaganda machinery of its proponents. "Grass Roots" committees appointed by the Administration have met in key areas throughout the nation during the Congressional recess to drum up support for the domestic proposals Mr. Kennedy failed to push through the legislature last session. The "White House Conference" in Detroit tried to create a public image that the AMA has opposed social security, that the AMA is against old people, and that any physician who speaks out against a compulsory medical care plan for the aged financed by social security is motivated by selfish interests. It is no secret that the fight for this legislation in 1962 will be monumental.

Our opponents have been spurred to great and bitter efforts. They are not bashful even if they are shortsighted to the frustration into which the King-Anderson Bill places the eventual health care of this nation. The forces of the Kennedy camp know just what they want and their tactics will be rough. We may find it necessary to play the game with similar rules. The stakes are high. If the opponents of the free, independent system of medicine lose in Congress they can try again next year. If we lose, free medicine will be lost for your lifetime.

Physicians need an organization which will promote an effective means for carrying out their civic responsibilities. Efforts to encourage improvements of governmental affairs as they relate to medicine often fail not because of a lack of enthusiastic leadership but because of a lack of unified political action to provide an intelligent, knowledgable and vigorous voice at local, state and national levels to speak our case.

A non-partisan action group has been formed by the House of Delegates at the AMA meeting last month in Denver. The American Medical Political Action Committee is a non-profit, voluntary, unincorporated unit, separate from the AMA with a threefold purpose:

1. To correct misconceptions which the public, our patients, have concerning the important political issues on which they must vote.

(Continued on Page 545)

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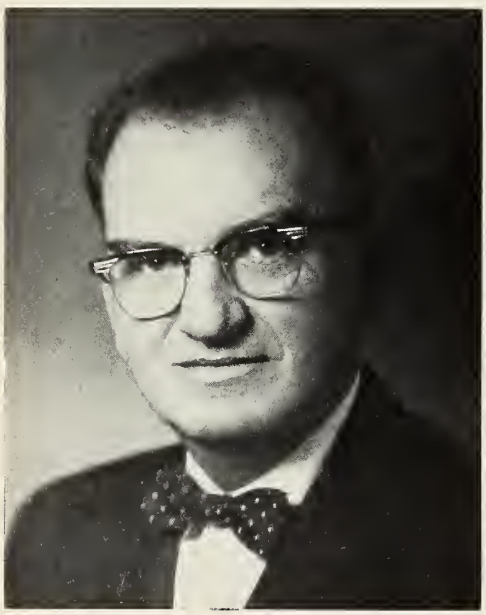
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President's Page

NEED WISE MEN



President
Michigan State Medical Society

It may not be too late for some people to take a "big look" at the medical care picture in the USA. Everywhere, there is evidence of remarkable accomplishment and the promise of continued progress.

This is a nation which, in a large measure, has controlled or stamped out many of our most dangerous and communicable diseases. We have eliminated major dangers of child bearing. We have conquered the ravages of malnutrition. Giant strides have been taken to protect us all from important hazards in the environment. These efforts are, of course, frequently interrelated. Space does not permit reporting the countless other examples of similar successes throughout the medical care and health field. Research programs currently under way promise equally dramatic results in areas where major progress still remains to be made.

All this has been made possible primarily by our medical care and related health system as we now know it.

What can be so wrong with a medical-health program which has played a key role in prolonging the lives of people to the point where to some this has become a problem—a delightful dilemma, as it were?

Isn't it interesting that the AMA, which has been so important in protecting this effective medical care system, should now be so roundly criticized because it does not embrace every crackpot idea for change? "The AMA is always against everything and never for anything" are words our reformers have used so often that some of us find ourselves repeating them. "The AMA should have a positive program," we are told.

The best medical care-health program the world has ever seen—*the one we have now—is* the positive program of the AMA. The much maligned AMA and others in organized medicine have incurred the wrath of those who would make drastic, politically motivated changes. When misguided individuals fight to change the system, the AMA fights back and does so very effectively. For this reason and no other the AMA is criticized and vilified.

At the time these people attack the AMA they attempt to carry favor with some of us, and to divide and weaken all of us, by praising the individual AMA membership. "The individual doctors are OK," we are told, "it's the AMA and organized medicine that is 'reactionary.'" This technique is as old as the hills. Every doctor should realize that an attack on the AMA is an attack upon himself.

(Turn to Page 538)



Request Medical Review Boards for Driver Licensing

Michigan Doctors of Medicine now have a real opportunity to be of valuable assistance in the work of licensing drivers. Some 300 cases a month involving physical qualifications to drive present themselves to the Driver Improvement Control Division of the Department of State. These are drivers who have had licenses, but due to accidents or other conditions are having their license situation reviewed by the Department.

Most of these drivers are directed to have an examination made by the physician of their choice and to have the results of the exam forwarded to the Department of State, where the decision is made as to whether the license will be renewed or not. This decision is not made by the local examining physician.

In order to have as wise and fair a decision as possible made in these cases, an arrangement has been worked out between the Michigan State Medical Society and the Department of State whereby in the more difficult cases, the Department will refer the local physician's report to a Medical Review Board appointed by the County Medical Society.

This Board will review the report of the examining physician and pass on recommendations to the Department of State, but again the final decision will rest with the Department, which is where it legally has to rest. Legal Counsel for the State Medical Society has studied the matter and has advised that the individual examining physician and the physician on the Review Boards will not be liable to suit.

Each county medical society is supposed to have appointed such a Review Board, usually to consist of three members, although more may be appointed from the larger county societies. To guide the Board, the AMA has published a "Medical Guide for Physicians in Determining Fitness to Drive a Motor Vehicle," and copies of this guide will be furnished to members of the Review Boards when their names are sent in to the State Society Office by the County Society Secretary. This guide is widely used throughout the country, and provides an opportunity for general uniformity in decisions. The guides are also of much value to individual physicians in advising their own patients about driving.

JOHN R. RODGER, M.D.
Chairman, MSMS Study Committee for Prevention of Highway Accidents

Seat Belts Installed



In keeping with the growing national emphasis on the value of seat belts in automobiles, the Traverse City State Hospital administration, in order to provide "That extra margin of safety" has installed seat belts in all of the hospital automobiles. In the photo, Deputy Sheriff Harry Heller; Sgt. Austin Van Stratt, Post Commander of the Traverse City State Police Post; B. B. Bushong, M.D., president of the Grand Traverse-Leelanau-Benzie County Medical Society, Charles Woodrow, Chief of Police of Traverse City; and Sgt. Don Downer, Safety and Traffic Office for District 7 of the Michigan State Police, give their approval as Milton Zahnow, hospital mechanic, demonstrates the seat belts as they have been installed in one of the vehicles.

MCI REGISTRATION—1962

Membership By Specialties

	Wayne County	*Outstate*
Anesthesiology		3
Dermatology-Syphilology	1	3
Gastroenterology-Proctology	8	5
General Practice	142	170
Medicine	43	41
Nervous and Mental	9	7
Obstetrics-Gynecology	53	26
Occupational Medicine	7	7
Ophthalmology	3	2
Otolaryngology	4	2
Pathology	16	6
Pediatrics	19	24
Public Health	7	17
Radiology	9	4
Surgery	64	46
Urology	4	
Residents and Interns	93	40
Specialty not given	61	89
	543	492

City or Town	*Michigan M.D.'s*	*City or Town*	*Michigan M.D.'s*
Adrian	4	Midland	4
Albion	5	Milan	3
Allen Park	5	Monroe	13
Ann Arbor	49	Mt. Clemens	7
Bad Axe	4	Mt. Pleasant	3
Battle Creek	11	Muskegon	4
Bay City	9	Northville	16
Birmingham	7	Oak Park	6
Cadillac	3	Oscoda	2
Charlevoix	2	Owosso	4
Dearborn	23	Pleasant Ridge	2
Detroit	472	Plymouth	4
East Detroit	7	Pontiac	34
East Lansing	5	Port Huron	5
Eloise	6	Rochester	2
Farmington	2	Royal Oak	17
Ferndale	4	St. Claire Shores	6
Flatrock	2	St. Joseph	2
Flint	26	Southfield	5
Fremont	3	Sturgis	2
Garden City	3	Tecumseh	3
Grand Rapids	23	Traverse City	2
Grosse Pointe	11	Trenton	4
Grosse Pointe Woods	2	Utica	2
Hastings	3	Warren	6
Highland Park	5	Williamston	2
Kalamazoo	9	Wyandotte	9
Lansing	21	(Towns represented by one)	75
Lapeer	6		
Lincoln Park	6	TOTAL	1,035
Livonia	5		

M.D.'s Outside of Michigan

Alabama	1
California	1
Canada	25
Indiana	1
Kentucky	1
Maryland	1
Minnesota	2
New York	3
Ohio	7
Pennsylvania	3
Rhode Island	1
Washington, D. C.	1
West Africa	1

One member attended from each of the following cities: Alma, Alpena, Armada, Auburn Heights, Bangor, Belle River, Berkeley, Beulah, Birch Run, Bridgeport, Brown City, Caro, Cass City, Chelsea, Clare, Clinton, Coopersville, East Jordan, Escanaba, Fenton, Fowlerville, Freeland, Gladstone, Grandville, Grosse Pointe Park, Hamtramck, Harbor Beach, Harrison, Hazel Park, Hartford, Hillsdale, Howell, Huntington Woods, Imlay, Inkster, Ionia, Ishpeming, Kalkaska, Lathrup Village, Madison Heights, Manistique, Marlette, Middleville, Milford, Mt. Morris, New Baltimore, New Hyde Park, Newaygo, Newport, Niles, Okemos, Olivet, Otisville, Onaway, Petoskey, Remus, Richmond, Romeo, Roseville, Romulus, Sandusky, Shelby, Southgate, Sparta, St. Ignace, St. Johns, St. Louis, Three Rivers, Union Lake, Vestaburg, Warren, Wayne, West Branch, Ypsilanti, Zeeland.

(Turn to Page 538)



Put your low-back patient back on the payroll

Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, *fast!*

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

This was demonstrated by Kestler in a controlled study: average time for full recovery was 11.5 days with Soma, 41 days without Soma. (J.A.M.A. 172:2039, April 30, 1960.)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets.
USUAL DOSAGE: 1 TABLET Q.I.D.

The muscle relaxant with an independent pain-relieving action

SOMA®

(carisoprodol, Wallace)

Wallace Laboratories, Cranbury, New Jersey

Welcome, New Members!

Name

Peter M. Agnone, M.D.
Detroit Memorial Hospital
Detroit 26, Michigan
(Anesthesiology)

Jack L. Barry, M.D.
5121 Eldorado St.
Bridgeport, Michigan

Franz Bauer, M.D.
740 Riker Bldg.
Pontiac, Michigan
(Pediatrics)

Ralph E. Bauer, M.D.
Henry Ford Hospital
Detroit 2, Michigan

Sanford Bloomberg, M.D.
41001 W. Seven Mile
Northville, Michigan
(Psychiatry)

Robert H. Boman, M.D.
12650 E. Outer Dr.
Detroit 24, Michigan
(Psychiatry)

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Charles G. Casey, M.D.
1800 Tuxedo
Detroit 6, Michigan

Frank W. Cook, M.D.
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Flint, Michigan
(Surgery)

Nicholas Csonka, M.D.
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Grand Rapids 2, Michigan
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Hugh F. Frame, M.D.
Department of Pathology
Hurley Hospital
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Joann M. Gates, M.D.
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Norris Gilfillan, M.D.
Burns Clinic
Petoskey, Michigan

Manuel R. Gomez, M.D.
5224 St. Antoine St.
Detroit 2, Michigan
(Neurology)

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4378 W. Delhi St.
Holt, Michigan

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Lansing 12, Michigan
(Plastic Surgery)

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Flint, Michigan
(Internal Medicine)

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Parchment, Michigan

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Pontiac State Hospital
Pontiac, Michigan
(Psychiatry)

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Monitor Leader Bldg.
Mt. Clemens, Michigan
(Roentgenology)

Robert C. Hulse, M.D.
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Munising, Michigan
(General Practice)

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Grand Blanc, Michigan

Edith J. Lee, M.D.
2424 Puritan
Detroit 21, Michigan
(Internal Medicine)

Antonio G. Limia, M.D.
24360 Kenosha
Oak Park 37, Michigan

Donald J. Litzenberger, M.D.
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Detroit 14, Michigan

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312 E. Chisholm St.
Alpena, Michigan
(General Practice)

Ronald H. Hoeksema, M.D.
292 E. Chicago St.
Coldwater, Michigan

A. B. Mitchell, M.D.
County Health Department
Allegan, Michigan

Earl R. Visser, M.D.
1597-A Arnold Dr.
Rantoul, Illinois
(Associate)

MEDICAL SOCIO-ECONOMIC COMMITTEES APPOINTED BY COUNTY MEDICAL SOCIETIES AND SPECIALTY GROUPS: SUPPLEMENTAL LIST, APRIL 11, 1962

Lenawee County Medical Society

Marvin B. Wolf, M.D., *Chairman*, Adrian
Alvin J. Phelman, M.D., Tecumseh

Detroit Academy of Orthopedic Surgery

Peter Shifrin, M.D., *Chairman*, Detroit
Francis Walsh, M.D., Detroit
Herbert Pedersen, M.D., Dearborn
A. Jackson Day, M.D., Detroit

President's Page

Need Wise Men

(Continued from Page 534)

We recognize, of course, that there may be minor imperfections in the voluntary personal health care system as we know it. Medical care planners in the social welfare area seem to be overwhelmed by them. Medical care for the aged, which we have efficiently given for years, is suddenly suspect, and to them has become an "emergency." We urge these socio-economists to simmer down and to take a "big look" at the whole picture. We seriously doubt the wisdom of altering the entire program and philosophy in hasty moves concocted to meet alleged minor deficiencies.

Social security compulsory medical care for the aged represents another big step toward medical care-health nationalization. We hope that others who would preserve our free enterprise economy will recognize it as such, and will act with some foresight and some speed.

Panalba* product information

Supplied: Capsules, each containing Panmycin* Phosphate (tetracycline phosphate complex), equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin,* as novobiocin sodium, in bottles of 16 and 100.

Usual Adult Dosage: 1 or 2 capsules three or four times a day.

Side Effects: Panmycin Phosphate is well tolerated clinically and has a very low order of toxicity comparable to that of the other tetracyclines. Side reactions are infrequent and consist principally of mild nausea and abdominal cramps.

Leukopenia has occurred occasionally in patients receiving novobiocin. Rarely, other blood dyscrasias including anemia, pancytopenia, agranulocytosis and thrombocytopenia have been reported. In a recent report it was observed that three times as many newborn infants receiving novobiocin developed jaundice as control infants. For this reason, administration of novobiocin to newborn and young infants is not recommended, unless indication is extremely urgent because of serious infections not susceptible to other antibacterial agents.

The development of jaundice has also been reported in older individuals receiving Albamycin. Serious liver damage has developed in a few patients, which was more likely related to the underlying disease than to therapy with novobiocin. Although reports such as the above are rare, discontinuance of novobiocin is indicated if jaundice develops. If continued therapy appears essential because of a serious infection due to microorganisms resistant to other antibacterial agents, liver function tests and blood studies should be performed frequently, and therapy with novobiocin stopped if necessary.

In a certain few patients treated with this agent, a yellow pigment has been found in the plasma. The nature of this pigment has not been defined. There is evidence that it may be a metabolic by-product of novobiocin, since it has been reported to be extractable from the plasma (pH 7 to 8.1) with chloroform while bilirubin is not. These properties have been employed to differentiate the yellow pigment due to the metabolic by-product of novobiocin and bilirubin. However, recent reports indicate that this method of differentiation may be unreliable.

Urticaria and maculopapular dermatitis have been reported in a significant percentage of patients treated with Albamycin. Upon discontinuance of the drug, these skin reactions rapidly disappeared.

Warning: Since Albamycin possesses a significant index of sensitization, appropriate precautions should be taken in administering the drug. If allergic reactions develop during treatment and are not readily controlled by antihistaminic agents, use of the product should be discontinued.

Total and differential blood cell counts should be made routinely during the administration of Albamycin. If new infections appear during therapy, appropriate measures should be taken; constant observation of the patient is essential. If a yellow pigment appears in the plasma, administration of the drug should be continued only in urgent cases, and the patient's condition closely followed by frequent liver function tests. In case of the development of liver dysfunction, therapy with this agent should be stopped.

How To Amplify Medicine's Voice

(Continued from Page 532)

2. To educate doctors to take a more effective and active part in politics, and

3. To seek out and elect candidates, regardless of party label who are friendly to the viewpoints of free, unfettered medicine.

The AMA and most state medical societies are corporations and as such are limited by law to spending money on political matters only indirectly for the education of their members and the public. They may not contribute directly to any political party or candidate. AMPAC is not thus restricted. It is in the process of joining in membership with each state political action committee. This is a wagon we have long needed. It is mandatory that the voice of those dedicated to the continued independence of medicine be amplified. Doctors may stay out of politics but they cannot keep politics out of their business. As emphasized recently by Dr. Edward R. Annis: "If doctors learn the facts and tell the facts, our problem of coping with COPE—the AFL-CIO's formidable and coldly efficient Committee on Political Education will be much closer to a satisfactory conclusion."

Critical days are ahead. Propagandists who are behind the determined drive for socialized medicine have latched on to an emotional appeal in trying to push the King-Anderson Bill through Congress. We must oppose such systems of compulsory medical care directed first to the aged which once adopted would surely be expanded to all of our population.

Politics is a sometimes bitter, always hectic game of strategy and pressures. If the people of this country knew that the health care of the nation is jeopardized by legislation now in the congressional mill, the majority of them, as voters would back the free, independent system of medicine at the voting booths.

Medical leadership must broadcast its message to an audience beyond the medical profession. AMPAC gives us the mechanism. It will shout from the housetops with facts—not philosophy to drown out the harangues of organized labor and other large lobbying interests. Practical politicians win with votes. Your future will be determined by your elected legislators. Because they are human, they respond to kind treatment just as your patients do. 1962 is an election year. AMPAC gives all physicians an opportunity to organize for effective political action. It has complete freedom from legal entanglements, but it is of dubious value without adequate funds. The Executive Director is Joe D. Miller, 520 N. Michigan Ave., Chicago, Illinois.

The American Medical Political Action Committee deserves your immediate, active, financial support.

By Donald N. Sweeny, Jr., M.D.

Acts within minutes—KOAGAMIN, unlike other hemostatic agents, acts *quickly* in *minimal* dosages. Working on the late phases of the clotting mechanism, KOAGAMIN does not require massive and prolonged pre- or postoperative dosages to control capillary and venous bleeding.

Acts with predictable safety—In 20 years of clinical use, no toxic or side actions have been reported with KOAGAMIN. Bleeding is arrested without danger of thrombosis, and because KOAGAMIN contains no protein or alkaloid, it can be administered without danger of sensitization or untoward reactions.

Acts effectively in a broad range of indications—Because of its *unparalleled safety* and *outstanding effectiveness,* KOAGAMIN has been successfully employed in...hemorrhagic diseases, abnormal bleeding, blood disorders, surgical cases and trauma.

KOAGAMIN, an aqueous solution of oxalic (5 mg. per cc.) and malonic (2.5 mg. per cc.) acids for parenteral use, is supplied in 10-cc. diaphragm-stoppered vials.

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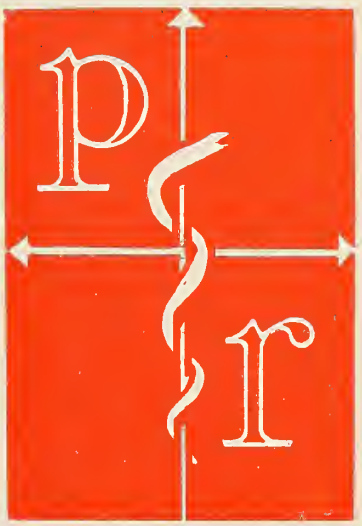
BEFORE, DURING AND AFTER SURGERY

KOAGAMIN®

(parenteral hemostat)

controls bleeding with minimal dosage and maximum safety

10360



Says Aged Await Views of Doctors

"Talk to your patients every day. The aged are awaiting your personal comments; they will believe you when you tell them the facts."

That plea is directed to all Michigan doctors of medicine by U. S. Congressman Durward G. Hall, M.D., of Missouri. Doctor Hall spoke in April at a special meeting of 250 Ingham County doctors, wives and friends

"Today, the American public is being whiplashed by statements emanating from the White House," Congressman Hall declared. "The aged are besieged daily with White House statements that are intended to convince the aged that their lives depend upon passage of the King-Anderson scheme."

"Those who advocate federal medical care under social security are creating a false mirage for 16 million people over 65," the Congressman declared.

"Aside from all questions of ethics and morality, this measure would not do what its advocates say it will do."

"The King-Anderson Bill (HR 4222) will provide, in most cases, less than 25 per cent of the care needed for an aged person," Congressman Hall reported. "To a medically indigent person, it is just as impossible for him to pay for 75 per cent of his medical expenses as it is for him to pay 100 per cent."

"And this Kennedy proposal provides this limited care for only those under Social Security," he added.

"The present Kerr-Mills Law, already in operation in Michigan, is effectively providing care for those aged who need help," Congressman Hall stressed.

"The Kennedy Administration would perform a great service to our aging citizens if they would help the present Kerr-Mills Law to work."

"Those who advocate the King-Anderson Bill are not the least likely to be distracted by facts or statistics contrary to their purpose," he commented.

"There's no retreat," Congressman Hall stressed. "We must stand up for an environment in which the practice of free medicine can be fully developed without third-party interference and always with freedom of choice."

"As physicians, our opportunities to practice free medicine can't be separated from our obligation to participate in good government."

Three areas of governmental action were outlined: First—Continue to write to the 25 members of the House Ways and Means Committee; Second—Explain your position to every member of Congress, should H.R. 4222 get out of committee. "Get to know him personally and help those men who stand with Medicine." Third—Support candidates that do have the same interests as Medicine.

The Faith to Be Free

We are at war with the Communists, and the sooner every red-blooded American realizes this, the safer we will be. Naturally, we want to live in peace, but we do not want peace at any price—we want peace with honor and integrity. And we intend to assure it for the future.

We must continue to stiffen our national backbone in dealing with the Communists and their dupes, sympathizers, and apologists. If we relax our guard for one moment, we court national disaster.

America's emblem is the soaring eagle—not the blind and timid mole. Fear, apologies, defeatism, and cowardice are alien to the thinking of true Americans. As for me, I would rather be dead than Red.

Our Nation holds in trust the last hope of a free civilization. Our dedication to truth, justice, and individual dignity must not be compromised. If we are strong enough, and care enough, and maintain our national integrity, this Nation will survive the terrible threat that presents itself today. With God's help, we will meet the challenge of survival. This is the heritage of America.

By J. Edgar Hoover
Director, Federal Bureau of Investigation

AMA Lobbying Costs Far Below Unions

Information available in Washington, D.C. on lobbying expenditures provides the truth to recent charges that "the AMA has the spendingest and most powerful lobby in Washington."

The public financial reports show that the labor unions spent more than $1 million for lobbying purposes in 1961, with AFL-CIO unions alone reporting a total of almost $707,000. In comparison, the AMA spent $163,404 last year.

The parent AFL-CIO organization led the spending of its affiliates with a reported total of $133,919. But there were AFL-CIO affiliates which also spent considerable sums for lobbying purposes. These included: Farmers Educational and Co-operative Union of America (AFL-CIO), $88,272; United Federation of Postal Clerks (AFL-CIO), $73,867; and the International Association of Machinists, District Lodge No. 44 (AFL-CIO), $71,736.

Labor's million dollar lobbying figure does not include the expenses of registered lobbyists for 17 unions. The latter group includes such huge unions as the United Automobile, Aircraft and Agricultural Implement Workers (AFL-CIO); United Steelworkers of America (AFL-CIO); and the United Mine Workers of America (Independent).

An AMA spokesman explains that "we are not attempting to white wash AMA's lobbying activities. The AMA has a right, and a duty, to lobby for, or against, various health measures. Of course, labor unions also have a right and a duty to their membership to lobby for certain measures."

* * *

AMA Offers Ads

A new venture in public service advertising has been launched by the American Medical Association.

Every county medical society received the first six in a series of public service messages with the recommendation that these ads be placed in local newspapers.

The ads are simple, straightforward and non-political. Each message is "open end" so that a medical society can add appropriate local information. The first six ads cover these subjects:

Choosing a family doctor
Medical society grievance committees
Doctor-patient relationship
Why MDs promote immunization
Medicine's traditional guarantee of care for all
Cost of medical care

Jim Reed, AMA's Communications Division director, says "For years newspaper publishers have resented medicine's unwillingness to buy space to tell the people its views on specific subjects. What doctors considered conformity to medical ethics was construed as niggardliness by the press." He adds: "Medicine's traditional reluctance to call attention to itself allows many a criticism to go unchallenged."

* * *

AMA Serves Radio Stations

Approximately 4,700 AM and FM radio stations across the country are now receiving monthly a series of health and safety spot announcements prepared by the American Medical Association.

The public service project offers 60-second and 20-second tips on health matters ranging from allergies to quackery to vitamins.

County medical societies are urged to follow up on this new AMA service by urging their local stations to use these spot announcements.

Medicine

Good medicine—like good music—is appreciated the world over. The doctor with his little black bag—whether he be an American, a foreign physician trained in America, or one trained at home with American help—can create more good will and sincere friendship than all the diplomats who might be sent out from Washington.—F. J. L. Blasingame, M.D.

Survey Tells Views Regarding M.D. Income

Americans believe M.D.'s deserve a good income in view of the importance of their work.

That was one of the findings of a survey by the Opinion Research Corporation of Princeton, N. J., for the American Academy of General Practice.

At the same time, only 19 per cent of persons interviewed believe "Financial gain" is the physician's chief motivating force. Most (63 per cent) believe the doctor's chief motivation is satisfaction in curing or helping people.

In its survey report, ORC noted that "informed people want better medicine and are willing to pay for it." It added that "rising demands for more doctor competence, more training and more time per patient, plus present satisfaction on fees, may one day support a higher fee structure."

The public, the survey showed, is generally satisfied with the quality of medical care available, with 75 per cent of the persons interviewed commenting that it is "good," 19 per cent commenting it is "average" and 4 per cent believing it is "poor."



Drug Prices Decline

Wholesale prices of prescription drugs in 1961 declined overall for the third straight year, according to John M. Firestone, professor of economics at City College of New York and consultant to the U. S. Bureau of Labor Statistics.

He said the new decline brought the Index to 89.7, 10.3 per cent below the base number of 100.0 at 1949. Thus it continues to reflect a long-term downward trend in wholesale prices of drugs prescribed by physicians, he added.

In contrast, prices of other commodities have moved up sharply during the same period, Dr. Firestone said. He pointed out that the Bureau of Labor Statistics' Wholesale Price Index for all commodities except farm and food has risen 20 per cent since 1949 and the Bureau's Consumer Price Index has increased 26 per cent during the same period.

Dr. Firestone said the drug price index has declined in nine of the years since 1949 and has shown an increase in only three.

The 1961 fall was largely influenced by price reductions in antibiotics that occurred in the latter half of 1960, Dr. Firestone said.

"Guaranteed" Health Care Policies Increase in USA

The number of guaranteed-for-life health insurance policies and plans available to persons in or near retirement is increasing at a rapid rate, the Health Insurance Institute reports.

The Institute reported that in July 1961 there were 126 guranteed-for-life plans and policies available to the aged. The policies were pro-

vided by 66 different companies. Now, there are 81 insurance companies providing a total of 157 policies and plans that are guaranteed for life.

The Institute said many of the policies are available to anyone 65 or older regardless of physical condition. Some of the policies accept new applicants up to age 80 or older, and some group-type plans enroll people 100 or older. Some of the policies, which become paid up for life at age 65, are designed for persons under 65. All of the policies have a lifetime guarantee, which means the insured person paying his premium retains his coverage regardless of how his health may change.

Push Economic Education

A program to reduce economic illiteracy in the United States has been launched by the Committee for Economic Development, New York.

Leading members of the economics and education professions as well as a number of their professional association and various civic groups developed the program in cooperation with CED. It provides, the Committee says, the basis for "an intensive, coordinated effort" that can "vastly increase" economic literacy within this decade.

Better understanding of how our economy operates "is vital to the survival of the American society," the Committee declared in addressing 11 recommendations to teachers, to writers and publishers, to business and other civic leaders as well as to individuals and organizations interested in education. Leader in the project is Theodore O. Yntema, Chairman of the Research and Policy Committee and Chairman, CED Finance Committee, Ford Motor Company.

AMA Urges Special Consideration for Low-income People, Aged

The Board of Trustees of the American Medical Association recently expressed "its strong commendation of the private health insurance industry for its tremendous development of group and individual health insurance programs for senior citizens and other age groups.

The AMA Board urged all physicians to accept an adjusted level of compensation for older persons of modest resources or low family income whether they are covered by private health insurance policies or Blue Shield plans.

The AMA Board also urges physicians "to consider such special compensation for services rendered to persons in this group whether they have health insurance coverage, a prepayment type policy, or pay directly for such expenses out of pocket."

The Board of Trustees applauded those employers who are in increasing numbers covering their retired employees and making arrangements for some kind of prepayment or health insurance plan for those about to retire."

Health Insurance Benefits Set New Mark during 1961

Health insurance benefit payments during 1961 by all insurers were estimated at $6.3 billion, an increase of 11 per cent over the $5,688,000,000 paid out during 1960.

The Health Insurance Institute further reports that insurance companies accounted for $3.4 billion of the 1961 benefits while all other insurers, including Blue Cross-Blue Shield and the independent plans, paid out some $2.9 billion. In 1960, insurance companies paid out $3,069,000,000 in benefits while other insuring groups paid out $2,619,000,000, according to the Institute.

Of the insurance company benefit total for 1961, said the Institute, an estimated $2.5 billion went to help policyholders pay hospital, surgical and medical bills. The remaining nearly $900 million was paid to persons with loss of income insurance to help replace income cut off as a result of injury or illness.

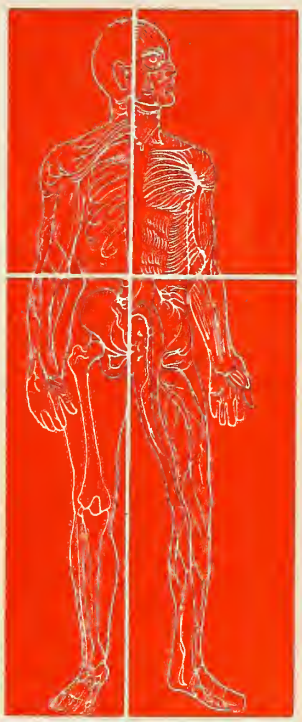
Supporters of Schemes

The hard-worked and over-burdened who form the great majority, and still more the incapables perpetually helped, who are ever led to look for more help, are ready supporters of schemes which promise them this or the other benefit by State-agency, and ready believers of those who tell them that such benefits can be given, and ought to be given. They listen with eager faith to all builders of political air-castles, from Oxford graduates down to Irish irreconcilables; and every additional tax-supported appliance for their welfare raises hopes of further ones. Indeed, the more numerous public instrumentalities become, the more is there generated in citizens the notion that everything is to be done for them, and nothing by them. Each generation is made less familiar with the attainment of desired ends by individual actions or private combinations, and more familiar with the attainment of them by governmental agencies; until, eventually, governmental agencies come to be thought of as the only available agencies.—Herbert Spencer, *The Man Versus The State*, 1884.

Private Practice and Rehabilitation

Frederic B. House, M.D.
Ann Arbor, Michigan

MANY forces appear to be working towards the destruction of private practice of medicine. However, it is most unlikely that the individual practitioner functioning on a fee-for-service basis will soon or ever be removed from the place of first importance in the medical community. The program of rehabilitation at St. Joseph Mercy Hospital is structured around the needs of the private practitioner of medicine. This program is planned with the prevailing philosophy that rehabilitation, the third phase of medicine, is essential in general practice and all specialties whether the specialty is based on an anatomical partitioning, age grouping, or mode of treatment. Finally, the program is devoted to the finding of a pattern of rehabilitation services which could be useful in other hospitals serving private practice.



Rehabilitation Committee

To do this job has required the hard work of a Staff Committee on Rehabilitation. This article, in fact, is a report of the committee prepared by the chairman and approved at the committee's regular monthly meeting on February 6, 1962. The committee is composed of representatives of the following areas of interest: Public Health, General Practice, Orthopedics, General Surgery, Pediatrics, Otolaryngology, Psychiatry, Cardiology, Rheumatology, Neurology, Physical Medicine and Rehabilitation, Speech Pathology, and the Hospital Administration. The committee meets at a regular time once each month. It recommends policy to the medical staff and the administration and reviews the work of the department with the medical director. It is a medical advisory committee.

Rehabilitation Staff

In our administrative plan, the rehabilitation staff is the same as the Department of Physical Medicine and Rehabilitation. We usually identify a dual function of some of the staff; for instance, the physical therapist and occupational therapist when treating a specific pathologic condition are rendering medical treatment. When these same people begin training and evaluating ability, they are rendering a rehabilitation service. The total staff is identified in the accompanying list of positions and is shown in diagram. Except for the medical director and the assistant medical directors, all are full-time employees of the hospital.

Services

The rehabilitation program at St. Joseph Mercy Hospital has developed over a period of four years. In the beginning, we coordinated the services of physical therapy, occupational therapy, medi-

The Author

FREDERIC B. HOUSE, M.D.



cine and prosthetics and utilized outside agencies to carry on psycho-social evaluation and vocational adjustment. Since September 1, 1961, we have had a psychologist, social worker and vocational trainer on our full-time staff. Other staff members, as noted in the roster, have been added since that time.



ST. JOSEPH MERCY HOSPITAL, ANN ARBOR, MICHIGAN

St. Joseph Mercy Hospital is a 500-bed general hospital. The medical staff consists of 152 medical doctors engaged in private practice. The hospital serves the city of Ann Arbor and the surrounding area as well as attracting patients from greater distances who come for special medical care. All qualified medical doctors in the area who are in private practice use this facility. The hospital is owned and operated by the Detroit Province of the Sisters of Mercy.

During the four months, September 1 to December 31, 1961, we rendered service to 71 patients. These were referred by 27 different staff doctors who retained the role of attending doctor in each case. Sponsorship is noted in the accompanying table.

Sponsoring Agencies

Agency	*Number of Cases*
Division of Vocational Rehabilitation	22
Self	19
Workmen's Compensation	13
Michigan Crippled Children Commission	4
Welfare	2
Society for Crippled Children and Adults	2
Veterans Administration	2
Farm Bureau	1
Other	6

Of the 71 patients served, 22 received prosthetic services only except for initial information gathered by the social worker prior to presentation to the Rehabilitation Conference; 18 patients received a complete psycho-social and vocational evaluation. The remaining 31 patients received some part of the psycho-social evaluation as ordered by the conference.

We have found our services useful in a variety of problems. All of these have been identified by medical doctors as not amenable to usual medical treatment. The patient who receives the full gamut of services is one who has a residual disability and who has reached the maximum benefit from medical treatment. This fact points up the great importance of accurate, coordinated medical evaluation. Without a firm understanding of the pathology involved and the need for medical treatment, rehabilitation services are bound to fail.

Industrial injury cases frequently fall into this category best served by the whole team. These many times have recognizable residual pathology causing disability which is not amenable to further treatment. Our efforts in these cases are directed towards psycho-social, vocational evaluation, selective placement and preparation for retraining when indicated.

The workmen's compensation laws which frequently come under criticism as an anti-rehabilitation force have not been found to be so in our experience. There are always places where improvements could be made but when the laws are interpreted by enlightened insurance carriers to include rehabilitation services with or as a part of medical care, then there is some hope of returning even the most difficult cases to the work force. We also find that the situation is improved when medical doctors require the same accuracy in diagnosing the psycho-social and vocational problems involved as they require in assessing medical diagnoses.

Method of Referral

In planning the method by which a patient is referred to the department for rehabilitation services, the Committee on Rehabilitation has worked hard to eliminate red tape and waiting. The minimum information required is a letter of referral indicating the medical diagnosis, limitations and reason for referral. This, if desired, can be called in to a secretary on the phone following which the patient is contacted by the department's social worker and initial information obtained. With these two sources of information, the medical referral and the social worker's interview, the patient is presented to the Rehabilitation Conference. Sometimes the patient is actually demonstrated to the conference, sometimes presentation is by records only.

The plan calls for a referral from a member of the medical staff of the hospital in all cases. When an outside agency or a doctor not on our staff wishes to send a patient in for services, referral is first made to

a member of the medical staff of the hospital, who then is responsible for the medical information and medical management while services are being rendered.

In actual practice, we have much more medical information than this basic referral with which to deal. For instance, if the patient is an in-patient and referral is made, the attending doctor or his resident or intern comes to the conference and presents the medical findings. In many cases, out-patients are first presented in the presence of their own physicians who give the basic information.

In a medical setting such as a general hospital dealing with acute cases, the medical doctor is the most important member of the team. We must have at the beginning an accurate diagnosis of pathologic condition and evaluation of physical disability. We would be wasting our time if we overlooked an opportunity to reduce disability by medical treatment before we tried to assess residual abilities and vocational potential.

Often it is advisable in terms of saving valuable time to enter into psycho-social evaluations concurrent with medical treatment such as physical therapy and occupational therapy or even surgery if one can anticipate a predictable residual disability.

Rehabilitation Conference

The Rehabilitation Conference is made up of medical doctors and allied professional personnel. Specially qualified orthopedists, surgeons and internists meet with the medical director and other members of the Department of Physical Medicine and Rehabilitation once each week. In addition, there are outside agencies represented including the Rehabilitation Coordinator for the County Health Department and Visiting Nurses Association and the local Coordinator of the Division of Vocational Rehabilitation, who are in regular attendance. At this weekly conference, the problem is presented first by the referring physician and the social worker. From this original presentation, the Conference, not individuals, orders further evaluative studies when needed. From this evaluative information, the Conference at a later meeting establishes goals and recommends specific services, such as vocational training if necessary.

An attempt is made to keep the service at the minimum required to effect rehabilitation. We do not try to retrain everyone who is hurt at work, and when we do, it is the simplest training that can be found to get the patient back to work. Many times the service is limited to evaluation or finding why the patient doesn't go back to his regular work. If we agree that he can't go back to work at his regular place, then we may recommend selective placement within his capacity and help him with this placement. The possibilities are infinite in number and each case is given individual attention by the Conference.

BIOGRAPHICAL SKETCH

Frederic B. House, M.D., F.A.C.P., Diplomate of American Board of Physical Medicine and Rehabilitation, age 47, Chief of Staff and Head of Department of Physical Medicine and Rehabilitation, St. Joseph Mercy Hospital in Ann Arbor, Consultant in Physical Medicine and Rehabilitation for St. Joseph Mercy Hospital in Pontiac, and Head of Physical Medicine and Rehabilitation in the member hospitals of the Peoples Community Hospital Authority in Wayne, Michigan, received the degrees of A.B. and M.S. in physiology in addition to M.D. from the University of Michigan. He completed a residence in internal medicine at the Cleveland Clinic before working with Dr. Walter Zeiter at the Cleveland Clinic and Cleveland Rehabilitation Center to satisfy the requirements for the American Board of Physical Medicine and Rehabilitation. He is a Fellow of the American Academy of Physical Medicine and Rehabilitation, Michigan Rehabilitation Association and other professional societies.

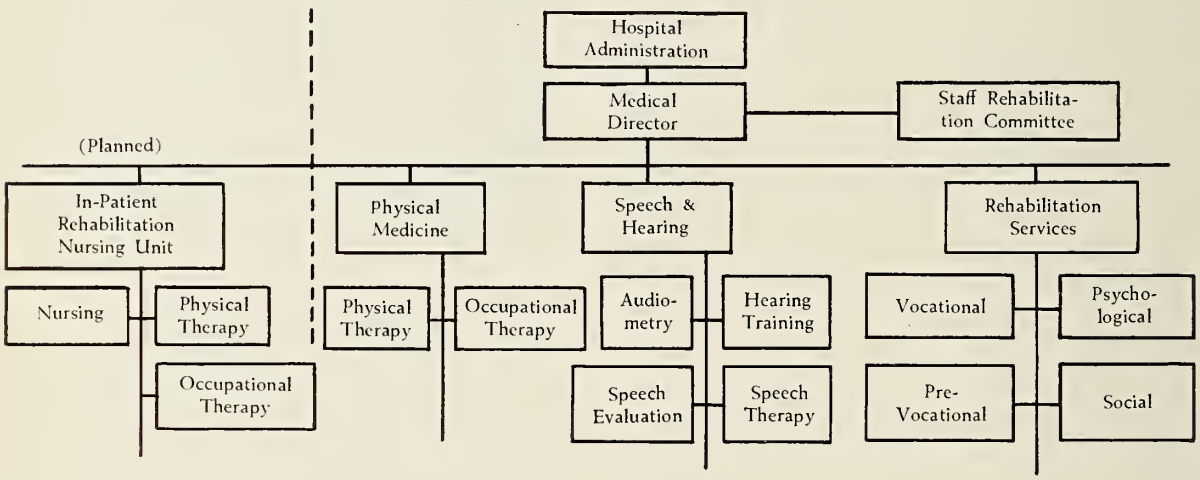
Vocational Rehabilitation

Assuming that there are jobs available, which unfortunately is not always the case, and assuming that a person needs work for economic support, the reasons why a person is not at work relates to one or more of the following categories: medical, psychological, social, or vocational. He must be ready in all four areas at the same time. Insurance companies estimate 95 per cent of persons involved in industrial injury cases have only a medical limitation which once removed puts them back to work. The other 5 per cent have inadequacies in one or more of the other categories with or without medical limitations. It is the function of the comprehensive rehabilitation center to work with all four to effect vocational rehabilitation. All degrees of success in these four categories can be conceived. Almost as important as success is the recognition of failure at an early stage. The following situations may cause failure: Medical—a rapidly progressing pathological condition not amenable to arrest or cure such as a malignant tumor; Psychological—severe personality defect, insanity or marked mental retardation which makes training impossible; Social—poverty, personal discord and disease in the family may present an insurmountable obstacle to rehabilitation; Vocational—usually no absolute obstacles here except lack of vocational services. If the other three qualities can be made compatible with employment then, with proper

Department of Physical Medicine and Rehabilitation

Medical Director	1	Physical Therapy Orderly	1
Assistant Medical Director	3	Chief Occupational Therapist	1
Medical Secretary	1	Staff Occupational Therapist	1
Assistant Director of Rehabilitation	1	Occupational Therapy Assistant	1
Administrative Secretary	1	Speech Therapist and Audiologist	1
Receptionist	2	Clinical Psychologist	1
Chief Physical Therapist	1	Medical Social Worker	1
Staff Physical Therapist	5	Vocational Counselor and Trainer	1
Physical Therapy Assistant	1	Pre-Vocational Evaluator	1
Physical Therapy Aide	4		

Administrative Diagram



resources, vocational training and/or placement can be accomplished. The failures that are related to economic reasons (more profitable to loaf than work) or lack of motivation should always be reduced to more elemental factors.

Independent Living

The patients whose needs are in terms of self-help or independent living and the children whose greatest potential is school are not overlooked. Most of the same services apply. In the case of the oldster, the rehabilitation problem may be solved by good restorative procedures in physical therapy and occupational therapy. Adding these services to the attention of an alert coordinator for the Visiting Nurses Association may be the entire answer. We would not belittle the enormity of the problems encountered by oldsters and children, but in many ways they require a lesser variety of services. The outstanding quality of our program is its vocational services including the use of work stations in the hospital for training and evaluation.

The over-all plan for the Department of Physical Medicine and Rehabilitation at the hospital calls for a small in-patient rehabilitation unit to be opened soon. This unit will consist of eight beds for selected patients. These patients will be ones who will benefit from intensive restorative procedures carried out by physical therapy and occupational therapy in conjunction with the nursing staff. Actually, an in-patient service relates more to restorative medical services, such as physical therapy and occupational therapy, than to comprehensive rehabilitation, and we don't believe an in-patient service to be essential to our work. With the staff well-oriented to rehabilitation, every bed in the hospital is potentially a rehabilitation bed.

Financial Support

It is generally accepted, and studies have demonstrated, that medically oriented rehabilitation is not self-supporting. We are not prepared to contradict this; however, it is believed that rehabilitation services must be taken out of the large group of charities and provided on a cost basis. Insurance companies which write workmen's compensation insurance are helping immeasurably in this effort. Our group is devoted to the concept of cost accounting and setting a realistic fee-for-service. At present, we believe that our experience is too meager to allow conclusive and defensible fee setting. As a result, our fees are set at a low level which we estimate now at about one-half the cost. Changes will be made annually.

In order to support this losing operation, we are fortunate to have the assistance of a grant of Federal funds for a few years, which is about two-thirds of an estimated budget required to add the psycho-social and vocational services to our existing Physical Medicine and Rehabilitation Department. In subsequent reports, we hope to be able to show costs for minimum programs for smaller hospitals and means of reducing deficits in larger hospitals.

Summary

We have established in a private, non-profit, general hospital a program of comprehensive rehabilitation. This program is medically oriented and offers an essential service to all members of the medical staff in a manner similar to laboratory service and x-ray service. By this method, we are contributing to the solution of some of the most difficult of rehabilitation problems associated with disability caused by illness, injury, or congenital abnormalities. We believe that by tapping the resource of private medical practice in the interest of rehabilitation we will shorten the time lapse between injury or illness and the return of patients to optimal place in the community.

References

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Sinus Bradycardia from Distending the Sinus Node Artery

(Abstract of paper presented at spring meeting of Detroit Physiological Society)

The sinus node encircles the largest atrial artery in both man and dog. The artery to the sinus node in over 90 per cent of dogs arises from the terminal third of the right coronary tree. In 50 anesthetized dogs, with hearts exposed by a midline sternum-splitting incision, we have cannulated the sinus node artery, using a small polyethylene catheter introduced through the main right coronary artery. Injection into the sinus node artery invariably produced bradycardia. A variety of test solutions were employed, the most physiological being the dog's own freshly drawn femoral artery blood. The injection pressure within the artery, measured by a second catheter connected to a strain guage, averaged 100 mm. Hg. The fall in heart rate varied from 10 to 50 per cent of the control value. Slowing persisted with prolonged injections, and similar responses could be reproduced repeatedly, either in close sequence, or after many hours. The P wave and PR time did not vary during electrocardiographic monitoring, except rarely when sinus arrest and nodal escape occurred. Vagotomy, atropinization, and ganglionic blockade did not abolish the phenomenon. The distention of atrial arteries not supplying the sinus node did not affect the heart rate. These observations indicate that the sinus node can be influenced by a rise in pressure within its artery. The importance of this effect as it pertains to the normal regulation of the heart beat remains to be determined.—THOMAS N. JAMES, M.D. and REGINALD A. NADEAU, M.D.

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A Symposium on the Care of the Cord Injury Patient

Introduction

Severe trauma to the spine resulting in permanent cord injury is becoming increasingly prevalent. A greater number of these patients are surviving. The total number of cord injury patients is, therefore, increasing. In the last six years at Mary Free Bed Children's Hospital and Orthopaedic Center, there have been 49 paraplegic patients, 41 quadriplegic patients, and 29 spina bifida patients seen from 37 counties in the state. The average age of the patient was 19 years, with the youngest being three and the oldest 59. There were 92 male and 31 female patients. The average hospital stay, with three exceptions, was 127 days. Our experience has shown that a cooperative team effort in the care of these unfortunate individuals can result in decreased morbidity and successful rehabilitation, both physical, emotional, social and economic. A symposium on the care of the cord injury patient from the Neurosurgical, Urological, Plastic and Orthopaedic aspects is presented.

ALFRED B. SWANSON, M.D.

Acute Injuries to the Spine and Spinal Cord

Diagnosis and Treatment

Carl F. List, M.D., M.S., F.A.C.S.

Grand Rapids, Michigan

ONE of the most tragic fates that may befall a healthy young person is to suffer a severe injury to the spinal cord which makes him a helpless cripple for the rest of his life. Prevention of such a calamity has become a matter of public concern, yet, despite warnings and precautions, the causative automobile, diving and football accidents seem to be on the increase.

The general medical practitioner must be able to size up the condition of the patient with an acute spine and spinal cord injury and to give emergency care, until long-term definitive treatment can be instituted.



The Author
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History and Clinical Considerations

A brief history as to the mechanism of injury must precede the examination; information should be sought as to whether the injury was caused by excessive flexion or extension of the spine, by an alternating flexion and extension ("whiplash" injury) or by violent axial thrust; finally, the site of a direct impact should be determined. One should also remember that the injured person may have had a pre-existing condition such as a developmental anomaly of the spine, osteoarthritis, or degenerative disk disease. Even insignificant trauma may produce a pathologic fracture with sudden vertebral collapse in previously asymptomatic neoplastic lesions (myeloma, metastatic carcinoma). No history is adequate without answering

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questions such as: Has there been a change of consciousness; is paralysis present, and, if so, when did it occur; is there evidence for other injuries?

Clinical Examination

A brief preliminary examination must be conducted at the site of the accident, if possible, without changing the patient's position. Such survey will disclose whether or not the patient is conscious, bleeding, in state of shock, paralyzed and whether he has respiratory difficulties. In the hospital, inspection of the *undressed* patient may show an abnormal posture or angulation (kyphus) of the spine, with surrounding swelling caused by paraspinal contusion and hematoma. Since the ultimate outcome mainly depends upon the extent of neurologic involvement, it is of greatest importance to recognize a lesion of the spinal cord and nerve roots. One must attempt to determine the level of the lesion, the degree of the neurologic deficit and, if possible, selective damage to specific pathways (root lesion, central gray matter lesion, unilateral Brown-Sequard syndrome, et cetera). Transverse lesions of the cord can be accurately localized by establishing the upper level of sensory, motor and reflex loss. Whenever an apparent sensory level is noted at the upper thoracic area, the upper extremities have to be examined carefully. If one finds, in such cases, sensory loss over the inner aspect of the arms and paresis of small hand muscles, the lesion must be localized to the low cervical rather than the upper thoracic portion of the cord. As a rule, all deep reflexes below the lesion are abolished in acute severe traumatic paraplegia. Sometimes, pathologic foot reflexes, such as Babinski's sign, may not be elicited. Various modes of sensation (deep and superficial) should always be tested, since individual sensory pathways may have been selectively damaged.

Roentgenographic Examination

Roentgenograms of the spine are indispensable for accurate diagnosis. Radiographs should always be taken in two projections because, occasionally, the fracture or dislocation may be visible only on one view. Roentgenographic and neurologic changes do not always correspond in their degree of severity. In certain situations, e.g., for the demonstration of a fractured odontoid process, special projections or tomograms give valuable information. Positioning of the patient on the x-ray table must be done with caution and may require preliminary analgesic medication.

Lumbar Puncture

Lumbar puncture has some diagnostic and prognostic merit in acute spine and cord injuries in that it reveals the presence of a subarachnoid block and of blood in the spinal fluid. Myelography, on the other hand, is unnecessary and usually contraindicated in acute cord trauma.

Emergency Treatment

Primary concern of the physician called to the scene of accident is proper transportation of the injured person to a hospital. As a rule, it is safest to keep the patient in recumbent supine position. When an injury of the cervical spine is suspected, the neck must be immobilized in a straight neutral or slightly extended position (by sandbags). Under no circumstances should the neck be twisted or flexed or the patient be propped up on pillows. Transfer of the patient from stretcher to bed or vice versa requires adequate help in order to avoid unnecessary pain or the risk of additional injury.

Next to correct posturing, maintenance of an adequate respiratory exchange is the most important immediate problem, particularly when paralysis of respiratory muscles, rib fractures or abdominal distension are present. If both intercostal muscles and diaphragm are paralyzed by a high cervical lesion and the patient breathes only with his auxiliary muscles, O_2 must be given immediately and a respirator should be at hand. In any case, the airway must be kept mechanically free by aspiration, and if serious respiratory embarrassment continues, tracheotomy should be done without delay. An inlying tracheostomy tube facilitates assisted breathing by means of a Bennett respirator. It also helps to overcome states of lowered consciousness and confusion resulting from anoxia or circulatory disturbances of the high cervical cord. If diaphragmatic elevation due to abdominal distension interferes with proper respiratory exchange, aspiration by means of an intragastric Levine tube and continued suction will improve the situation.

Since pain may be severe in acute spinal injuries, especially when nerve roots are involved, narcotics are usually indicated, yet large doses of demerol or opiates must not be used in patients with serious neurogenic breathing difficulties, lest one induces irreversible respiratory failure.

Finally, every patient with acute spinal injury must be examined for urinary retention because totally paraplegic persons are unaware of bladder distension. The overfilled bladder has to be slowly decompressed

by introduction of an inlying catheter (Foley bag) which is to be drained intermittently.

Definitive Treatment

Definitive treatment or injuries to the spine and cord seeks to achieve anatomic restitution and functional recovery, an ideal which unfortunately, is unattainable in many cases. The basic decision as to whether the patient should be treated by conservative or surgical methods usually has to be made soon after completion of the diagnostic studies. If there is fracture and/or dislocation without significant neurologic involvement, conservative orthopedic management is the treatment of first choice: viz. immobilization in neutral position after correction of the deformity by traction or special positioning (on a frame). Traction is highly effective in fracture-dislocation of the cervical spine, provided the facets are not locked. In fractures of the lumbar spine, pelvic traction is of moderate benefit, but fractures of the thoracic vertebrae are not helped by this method. Reduction of a fracture-dislocation by direct manipulation is not recommended since it is dangerous and may increase the damage to the spinal cord. The most comfortable and effective type of traction is axial skeletal pull by means of Crutchfield's or Vinke's tongs. Proper use of these devices requires: (1) sufficient pull to stretch the neck and to suspend the head (at least 18 pounds), (2) adjustable direction of the pull, (3) support of the body up to the shoulder level, (4) slight downward slant of the body for countertraction.

If major damage has occurred to the cord and nerve roots, one faces the decision whether or not to perform a laminectomy. Even experienced neurosurgeons have difficulties in predicting the relative chances of neurologic recovery with, versus without, operation. Frequently, one cannot be certain whether the cord has been actually severed or crushed, yet, remaining in anatomic continuity or only mildly bruised. If the paraplegia is not the result of major structural damage, but only a sign of spinal shock or "diaschisis," complete spontaneous recovery may eventually occur. In view of this prognostic uncertainty, there is still some disagreement concerning the best therapeutic policy, yet, the following indications for surgery are generally accepted:

1. Evidence for compound fracture, including missile wounds, of the spine and spinal cord.

2. Presence of free bone fragments or foreign bodies in the spinal canal.

3. Progressive neurologic signs with ascending level of the sensorimotor paralysis.

Additional criteria may serve as relative surgical indications:

4. Development of spinal subarachnoid block, particularly if it is not caused by bony compression.

5. Fractures of the lumbar spine with cauda equina lesion below the conus level (L1), since traumatic root lesions have a greater propensity of recovery than a cord lesion.

6. Specific request by the patient or family to undergo exploratory laminectomy.

Item 4, presence of subarachnoid block, is considered by some neurosurgeons as an unreliable indication. Item 6, operation by request of patient, is admittedly based on psychologic rather than on purely medical reasoning, yet, the neurosurgeon should shun no effort to salvage an otherwise hopeless situation; this approach is justified especially in the young and good risk patients.

Contraindications against surgery are: old age, poor general condition, coexistence of other severe injuries, and also complete high cervical cord lesions (above C4).

The neurosurgeon tries to accomplish two objectives: reduction of fracture-dislocation, and decompression of the cord and nerve roots. In cervical injuries, neck traction must be maintained before, during and after the operation. Previously fixed dislocations can be reduced after facetectomy, but a definitive fixation in the corrected position (by wire or bony fusion) is permissible at the primary operation only if there is no significant cord injury. Adequate decompression is of primary concern in cases with severe neurologic damage, whereas bony stabilization remains a secondary consideration for a later stage. The dura should be always opened at operation and preferably not closed again for better decompression of the swollen cord. A pial (intramedullary) incision is at times advisable to permit extrusion of pulped cord substance.

In dorsal and lumbar fractures, the stability of the spine is usually not seriously jeopardized by laminectomy, hence such cases do not require routine fusion. Cervical fracture dislocations tend to remain unstable and are apt to redislocate, despite neck support; permanent stabilization is achieved here by an anterior cervical body fusion (done as a second stage procedure).

Postoperative Care and Complications of Acute Spinal Cord Injuries

The postoperative management of patients with acute cord injury is essentially that of paraplegic persons.

Bedsores must and can be prevented by alert and meticulous nursing care. The patient's position must be changed frequently, at least every two hours. A movable (Stryker or Foster) frame facilitates turning, but is *per se* no substitute for painstaking nursing; vibrating air mattresses may be also used to good advantage. Proper positioning of limbs helps to prevent annoying contractures which later on handicap rehabilitation.

Many patients with severe acute cord injury develop initially a paralytic ileus. The distressing symptoms of this complication can be alleviated or prevented by giving only intravenous fluids during the first few days after the injury. Intermittent gastric suction by inlying plastic tube decompresses the upper gastrointestinal tract, while a rectal tube and parasympathomimetic drugs such as prostigmin or urecholin may aid the rectal evacuation of gas and stools. In any case, the patient must be first checked for rectal impaction and this condition eliminated by manual removal and enemas. Once adequate defecation has been achieved, subsequent periodic bowel activity may be maintained by judicious use of mild laxatives, detergents (Doxinate, Colace) and enemas.

The care of the paralytic bladder is of utmost importance in every paraplegic patient. Neglect of adequate urinary drainage opens the door to serious and often resistant infections of the genitourinary tract. The guiding principles here are intermittent emptying of the bladder, without permitting urinary stasis and overdistension of the bladder to develop, and meticulous, aseptic catheter technique.

In most paraplegic patients, profound metabolic alterations occur, viz. depletion of electrolytes, vitamins and massive loss of protein. If these changes are not recognized and corrected, the patients become emaciated rapidly, show little resistance to complicating infections and are prone to develop bedsores. A high-caloric diet, rich in proteins, vitamins (C, B complex) and minerals is essential here to maintain a good nutritional state. If the patient is already cachectic, anemic and septic due to infectious complications, the tide may be turned by appropriate antibiotics and repeated blood transfusions.

Some Neurosurgical Problems in Chronic Paraplegic Patients

On occasions, the neurosurgeon is called upon to relieve intractable pain or severe reflex spasms of chronic paraplegic patients. Intractable pain is encountered in certain incomplete lesions of the cord and, more often, in lesions of the cauda equina. Pain may be constant and intolerable because of its intensity and "hyperpathic" quality, yet, the affected areas may be anesthetic to testing (so-called anesthesia dolorosa). Even strong narcotics give little relief; besides, their prolonged use may lead to addiction. Anterolateral cordotomy offers a chance to alleviate the suffering of these unfortunates, even though this operation adds a sensory deficit to the pre-existing neurologic signs.

Flexor spasms result from chronically increased reflex activity of the damaged cord; persistant or repetitive sensory excitation by bedsores, bladder infection or pressure from braces are responsible for this annoying condition which interferes with rehabilitation. If a paraplegic patient with severe flexor spasms has no volitional movements in the lower extremities and no future return may be reasonably expected, the neurosurgeon is entitled to perform an anterior rhizotomy. This operation severs the anterior nerve roots from D10-S1 inclusively, but spares the important innervation for the bladder and rectum, contained in the roots S2-4. The procedure thus transforms the spastic paraplegia (upper motor neuron lesion) into a permanent flaccid paralysis (lower motor neuron lesion). Actually, this apparent sacrifice makes orthopedic rehabilitation much easier.

The Power of Suggestion

Patients under anesthesia, deep enough to permit surgery, responded to the suggestion that they would recover sooner and go home sooner than usual, Robert E. Pearson, M.D., of Boyne City, reported to the American Society of Clinical Hypnosis in St. Louis. Among those given the suggestion, the mean postoperative stay was 8.63 days, compared with 11.05 days among those not given the suggestion. The experiment was tried during surgery for hernia, hysterectomy, abdominal exploration, vein stripping, hemorrhoid, stomach and thyroid explorations.—*GP*, January, 1962.

Neurogenic Vesical and Sexual Dysfunction Attendant On Trauma to the Spinal Cord

Observations on Management

William C. Baum, M.D.
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THE DRAMA of the initial approach to the acutely traumatized patient and the subsequent transition to the problems of the reconstructive period, for those who survive and for those responsible for this survival, must blend slowly into the final phase, the continued struggle for existence. Survival as a goal is not sufficient in itself to justify the effort involved in its attainment unless the end result enables the patient to make a reasonably satisfactory adjustment to society within the limits of his incapacity, an adjustment that permits the individual enough physiologic salvage to maintain the essentials of human dignity. No person is more acutely aware of this fact than the neurologic cripple, the patient himself. No person is more cognizant of the difficulties involved in attaining this goal than his physician. Since neither the physician nor the patient is in a position to decide initially on the question of the advisability of survival, both must be dedicated to a program best designed to make the most of what function remains after recovery is complete.

If there be any justification for reiteration of basic principles of urologic management, already well-documented in the literature, it must lie in the accepted fact that they are not universally known and practiced, that they do determine to a significant degree the ultimate success of survival, and that they are amenable to further investigation and change. Since the purpose of these four papers is to present, in part, the experiences gained in the management of the neurologically traumatized patient at an institution specifically designed for their care, the author elects to offer a philosophy of approach based on an understanding of the neurophysiology of micturition and sexual function.



The Author
WILLIAM C. BAUM, M.D.

Bladder and Lower Motor Neurone

Man acquires at birth a urinary viscus made up of smooth muscle with certain striated muscle associations at its periphery. This functional unit possesses two reflex centers (Fig. 1): (1) a primitive myoneural intrinsic nerve net responsible for tonicity and volume-pressure adjustment, and (2) a spinal reflex center whose somatic and autonomic afferents carry proprioceptive and exteroceptive sensations responsible for the desire to void as well as the sensation of urine passing through the urethra (Fig. 2), and whose efferents are responsible for detrusor contraction (parasympathetic) (Fig. 1), closure of the vesical neck and uretero-vesical junction (sympathetic) (Fig. 3), and facilitation of the retention and expulsion of urine (somatic) (Fig. 4). Collectively, these activities may be considered the prerogatives of the lower motor neurone.

Upper Motor Neurone

The function of the lower motor neurone is largely reflex through the sacral cord. It is not an efficient activity unless modified by the supra-spinal centers (Fig. 5). To these pathways may be ascribed the ability of facilitation and inhibition of the lower motor neurone. It is through these tracts that the individual is aware of the proprioceptive sensations of fullness or distention, desire to void and imminence of micturi-

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tion as well as the passage of urine through the urethra, and the exteroceptive sensations of pain and temperature.

In essence, then, efficient function is dependent on an intact upper and lower motor neurone. Total or

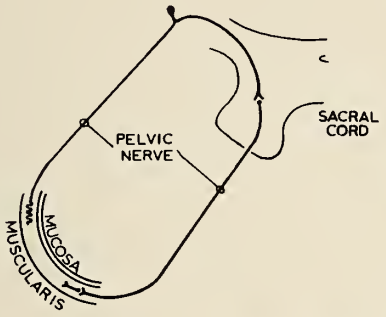


Fig. 1. The lower motor neurone spinal reflex arc for control of bladder function.

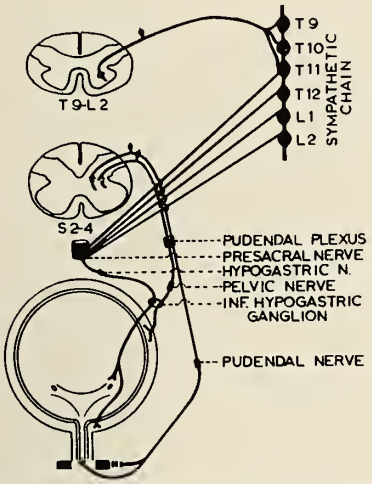


Fig. 2. The lower motor neurone spinal reflex arc showing autonomic and somatic afferent sensory pathways.

partial dysfunction invariably accompanies trauma of the spinal cord of sufficient magnitude to temporarily or permanently disrupt these centers and their peripheral connections. Armed with this anatomic understanding, informed of the location and degree of spinal cord injury, the physician with but a few simple tools becomes a diagnostician, a prognosticator, and a therapist with respect to future function of the urinary system. To this end, let the orderly management and investigation of the acutely injured patient next be considered.

Stage of Spinal Shock

The immediate concern of the physician responsible for the patient who has sustained injury to the spinal cord is obviously the institution of life-saving supportive measures, the prevention of further damage to the nervous system, and the employment of corrective measures designed to allow the maximum chance for recovery. In addition there is the ever-present secondary problem of management of altered visceral function attendant on a general state of spinal shock.

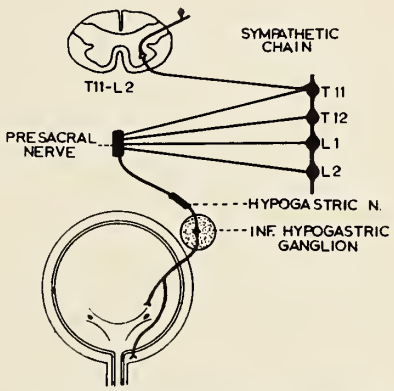


Fig. 3. The sympathetic efferent motor pathways to the trigone and bladder neck.

While concern over visceral function is admittedly secondary, this term must not be considered a synonym of delay, for therapeutic procrastination at this time may induce changes every bit as difficult to solve as the immediate neurologic problem.

Spinal shock, a variable phenomenon as far as duration is concerned, implies a complete cessation of function of the cord and all of its connections. From the neuro-vesical standpoint, it implies a reversion to the most primitive type of vesical function, the autonomous state. Here is a bladder completely divorced of all outside nervous system connections, a muscular unit with its own myo-neural connections, behaving as smooth muscle, but totally unable to respond in an efficient manner, devoid of all detrusor activity, and deprived of all modalities by which its wants were formerly made known. The stage is set for total vesical muscular decompensation through over-distention unless decompression through drainage is instituted at once. The rules for therapy during the stage of spinal shock may then be listed in this order:

1. *Establish Drainage At Once.*—Introduce an indwelling retention catheter, a 16F Foley catheter in the

adult, smaller in children, hook to dependent bedside drainage via a plastic tube to a plastic sterile bag. No open connections! Crede and intermittent catheterization are mentioned only to be condemned.

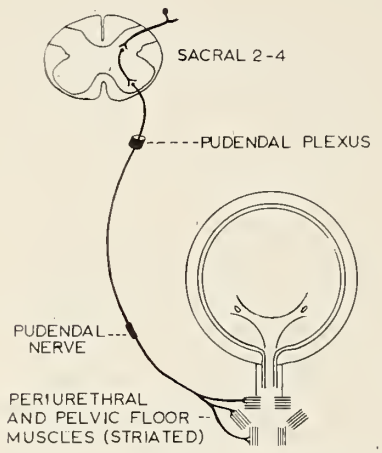


Fig. 4. Somatic efferent motor pathways to pelvic floor and periurethral striated muscle.

2. *Maintain Local Genital Cleanliness.*—Periurethral encrustation invariably ensues secondary to mucosal reaction to the indwelling foreign body. It blocks further drainage, permits periurethral phlegmon and abscess. This area must be washed daily with soap and water and the crusts removed.

3. *Institute Bladder Toilet.*—

Irrigation.—Acetic acid ¼ per cent should be employed three times daily or more using an asepto syringe and manually flushing the vesical content to liberate debris. Running a little fluid in an out, as most nurses are wont to do, is practically useless. Acetic acid has a definite and significant effect on reduction of bacterial flora, and aids materially in prevention of calculous disease.

Change of catheter.—The Foley catheter should be changed every 10-14 days regularly.

Antibacterial agents as preventatives.—Except in rare circumstances, routine antibacterial agents are not used in the presence of an indwelling catheter. All patients on indwelling catheter become infected within 24-72 hours of the institution of catheter. Routine administration of drugs will not prevent their appearance and do not reduce the incidence of complications. Resistance to the drugs used invariably occurs within a short period making subsequent use in time of need, that is, during periods of sepsis, ineffective. Acute urosepsis obviously demands therapy and under these circumstances broad spectrum agents may be effectively employed.

4. *Control of Complications.*—

Periurethral abscess.—If despite local cleanliness intolerance to the indwelling foreign body occurs with periurethritis and phlegmon, immediate supra pubic cystotomy for purposes of deviation of the urinary stream should be accomplished. If frank abscess formation has occurred, incision and drainage are necessary, of course. Do not leave a catheter indwelling in the face of this complication. Urethrocutaneous fistulae will invariably occur and are difficult and time-consuming to repair.

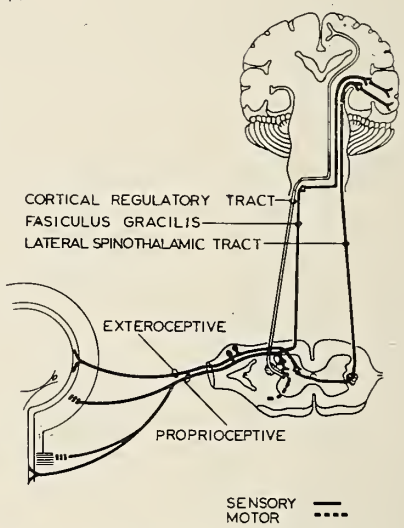


Fig. 5. Upper and lower motor neurone pathways showing conduction of sensory modalities as well as tracts responsible for facilitation and inhibition of bladder function.

Acute epididymitis and epididymo-orchitis.—Acute inflammation of the testis and duct system is common. Antibacterial therapy, scrotal support with elevation and ice packs will usually control this complication. Rarely, urosepsis with shock secondary to bacteremia ensues necessitating immediate orchidectomy plus supportive measures.

Stage of Recovery

The period of spinal shock is variable, in some instances a few days, often many months. Eventually, function will return equal to the capacity of the remaining undamaged nervous tissue. Here knowledge

of the location of the lesion will permit prediction as to type of recovery. In general, if the damage is above the sacral cord or lower motor neurone one may predict a return of its inherent reflex activity. Such a bladder may be termed a reflex neurogenic bladder. Should the sacral cord be irrepairably damaged, loss of lower motor neurone function may be expected leaving the bladder in the same autonomous state characteristic of the period of spinal shock.

In most instances, from the practical standpoint, a return of reflex activity is desirable and superior to the adynamism of the autonomous state. It is important therefore to establish the functional integrity of the sacral reflex arc as soon as possible. Certain tests are of aid in making this determination.

Regular Neurologic Examination.—There is no substitute for a regular examination to evaluate return of function. Each such survey should be accurately recorded on the chart. One simple maneuver used by Bors to check the integrity of the bulbocavernous-rectal reflex should be mentioned. The institution of deep constricting pressure to the glans penis with one hand while the index finger of the opposite hand is placed in the anus will cause a noticeable contraction of the anal sphincter if the reflex arc is functional. In recovery, this test may pick up return of function even before the ankle jerks are noted. The farther the location of trauma from the conus, the sooner its return.

Cystometry.—The most efficient method of determining the presence of reflex activity is by cystometry. It has aptly been termed the reflex hammer of the bladder. It is a crude instrument with many variables and is most effective in its simplest form. Like any other diagnostic instrument it is no better than the individual using it. Experience in interpretation is essential to accuracy.

Electromyography.—A more sensitive instrument of similar purpose. As yet but a research tool.

Urologic Management During Recovery Stage

Tidal Drainage.—In patients who have sustained injury above the upper motor neurone, and in whom return of reflex function can be demonstrated, consideration may be given to the use of tidal drainage. Its applications are the subject of considerable controversy amongst urologists. Some feel that it is of little practical value, while others have made its use almost a ritual. The proponents of tidal irrigation claim a "conditioning effect on reflex activity" as one of its major advantages. They believe that it enlarges capacity in hypertonic states, reduces the possibility of infection, and that it has a beneficial psychological effect on the patient. Munro has advocated a period of "bladder training" involving the use of tidal irrigation at night followed by clamping off the catheter for increasing increments of time during the day to condition the reflex and provide eventually a more suitable type of function. Those critical of the use of tidal irrigation point out that it is suitable only in institutions where considerable experience and careful personal supervision on the part of the nursing staff exists. It is pointed out that mechanical malfunction, if undetected, may lead to considerably more harm than good through overdistention and ascending infection. Probably the most significant criticism comes from those who have attempted to give tidal irrigation a clinical trial with large groups of patients, and who have compared its benefits with straight drainage and intermittent mechanical irrigation. In these instances, suitable bladder function developed just as often with straight drainage, and with no greater incidence of complications than with tidal irrigation. It seems safe to conclude that the use of tidal irrigation is of value as long as the unit used is mechanically sound and properly supervised. The device recently described by Lapides et al has proved most satisfactory in our experience. The choice between tidal drainage and straight drainage with intermittent irrigation can be left to the individual preference of the physician.

Drug Therapy.—The phase of recovery is marked by two vexing and seemingly contradictory problems with respect to vesical function; one, the marked hyperactivity of this viscus, perhaps better termed uninhibited activity, and two, the essentially inefficient nature of this activity as far as emptying is concerned. In the first instance, the ganglionic blockading agents, bathine, probanthine, hexamethonium and TEAC have all been used effectively. In the second instance, the parasympathomimetic drug, urecholine, has been of aid. Cannon originally pointed out the fact that neurogenically isolated structures exhibit increased irritability to chemical agents. Lapides, in recent experiments, has shown that the response to equal amounts of urecholine is much greater in all types of neurogenic bladders than in normal bladders. The selection of these agents will, of course, depend on the immediate therapeutic goal.

Collection Devices.—It is difficult to make an accurate prediction on the overall return of function in patients with spinal cord injury. Many factors are present which alter the final result, i.e., complete versus incomplete lesions, extensive local damage versus simple contusion, and upper motor neurone trauma versus involvement of the lower motor neurone.

About 65 per cent of the patients become catheter-free on drainage, irrespective of type used. About 20 per cent of these revert at one time or another to some form of intubation. Of those who develop reflex activity sufficiently efficient to permit emptying at reasonable intervals without significant residual urine, there remain many, a majority in fact, who cannot return to society without the additional benefit of a protection device to prevent the embarrassment of accidental wetting. This "accident" is, of course, the result of uninhibited reflex activity over which the patient has no control. It will occur despite bladder training or conditioning of the reflex. It will occur despite medication. When it does, there is no value in assuming that the patient has not been "trained." He may be incapable of complete control. Under these circumstances some sort of collection device is imperative if the individual is to return to society. The old heavy rubber urinals and various types of incontinence clamps are totally unsuited. They produce local irritation and promote urethro-cutaneous fistulae. The rubber condom technique utilized by Bors is most satisfactory. It is flexible, easily applied by the patient and has no appreciable bulk. Recently a heavier unit has been manufactured which is also suitable and has the advantages of plastic connections to a leg urinal for ease of cleaning.

Treatment of Resistant Vesical Dysfunction

Failure to free the patient of intubation devices (catheters, suprapubic tubes, et cetera) may result from a variety of causes. Inefficient reflex detrusor activity, permanent complete lower motor neurone lesions with total absence of reflex function, and hyperreflexia are among the most prominent. The approach to the problem will depend, of course, on the nature of the underlying abnormality.

In Lower Motor Neurone Lesions.—Permanent destruction of the lower motor neurone associated with complete absence of, or at least ineffective function of the detrusor mechanism and/or concomitant loss of sensory modalities lends itself best to urologic procedures designed to reduce peripheral resistance. This may permit the most efficient utilization of whatever detrusor activity remains, and if none, will enable the combination of crede or abdominal pressure plus voluntary muscular effort (diaphragmatic-abdominal wall) to better empty the bladder. Transurethral resection of the vesical neck and prostate gland offers the most satisfactory approach to this problem. It is not recommended in the presence of continuing recovery, but is reserved until the situation has stabilized. This time interval is obviously an individual matter and varies from 6-18 months after injury. In the opinion of the author, a clean circumferential resection should be done. In some instances more than one procedure is required to strike the balance between acceptable function and incontinence.

Despite all efforts some cases resist solution by this technique. If infected residual urine in amounts of greater than 150-200 cc. persist and especially if regression occurs following initial success, permanent drainage by suprapubic cystotomy or permanent cutaneous vesicostomy may be necessary in the male and indwelling catheter in the female.

In some instances lower motor neurone lesions are associated with total or partial incontinence without significant residual urine. In such cases collection devices such as the condom drainage unit in the male or the catheter in the female becomes the management of choice.

In Upper Motor Neurone Lesions.—The care of resistant upper motor neurone lesions usually involves a combination of urologic and neurologic procedures. Here the basic problem is often one of inefficient expulsion of urine with residuals greater than desirable. It has been the practice first to rid these patients of all evidence of obstructive uropathy as soon as the lesion is stable. Transurethral resection of the vesical neck and prostate gland is carried out. If successful, the patient is converted to condom drainage and placed under observation at regular intervals. If unsuccessful after repeated surgical procedures, pudendal nerve block after the technique of Bors is employed. Lessening of residual urine may occur and emptying may be more complete in many instances. The benefit is usually temporary, occasionally lasting. In rare instances when repeated block proves successful but lasting benefit does not ensue, a two-stage pudendal neurotomy may be performed. If the patient has erectile function, only a unilateral neurotomy should be carried out.

Other attacks designed to overcome localized spas-

ticity in upper motor neurone lesions include selective sacral nerve anesthesia, and in some instances sacral neurectomy. Meirowsky, Scheibert and Hinchet have used this technique in a series of patients and report improved bladder function. Choice of the proper pair of sacral nerves by selective anesthesia is a necessity. Usually three or four sacral blocks are done on separate occasions with subsequent trials of voiding. Occasionally, as in pudendal block, this proves of clinical benefit. If it does, but is not lasting, one may consider neurectomy.

Frequently, the physician caring for the paraplegic is beset by the problems associated with severe skeletal spasticity generally, often accompanied by autonomic hyperreflexia. In many instances attempts to gain satisfactory micturitional function by the aforementioned techniques have been unsuccessful. Conversion of an upper motor neurone lesion to a lower motor neurone type may then be recommended. Such procedures may include subarachnoid alcohol block posterior and/or anterior rhizotomy, cordectomy and conectomy. Rhizotomy and subarachnoid block have been the techniques employed most commonly. If satisfactory sexual function is present anterior rhizotomy is preferable (T-10 to S-1). Voiding function is of course altered after conversion of this type. Emptying must then be accomplished by abdominal pressure and crede.

Long-Term Problems in Management

Some of the problems of the acute phase and the intermediate phase of reconstruction have been mentioned. A greater threat to life, however, lies in the low-grade, long-term, insidious destructive processes whose origin lies in the basic vesical dysfunction, the complications it in itself creates, and the complications attendant on its therapy. In the end, these problems may be lumped together and considered collectively as a major threat to existence through the changes they induce directly or indirectly in the kidney.

For this reason, some consideration of the pathogenesis of these processes is in order. Initially, as has been stated, the patient is faced by the problems posed by a bladder divorced, by reason of trauma, of its reflex and higher nervous system connections. Introduction of a catheter is imperative under the circumstances. This therapeutic necessity is not without its drawbacks, however, for within a short time after institution of drainage the vesical mucosa is insulted not only by the foreign body, but by the hosts of bacteria which inevitably follow. These organisms set up an acute superficial inflammation which eventually becomes chronic, invades in depth, and permits the replacement of normal elastic tissue by inelastic fibrous tissue. The normal clean acid urine is quickly rendered alkaline by the ever-present urea splitters. The hypercalcuria of sudden enforced immobility promotes precipitation of calcium in this environment, stones form, often despite the best of care, and in themselves add further insult to injury. In those instances where trauma involves the upper motor neurone, the return of lower motor neurone reflex activity marks the beginning of a constant mass of abnormal stimuli arising from a chronically irritated bladder bombarding the reflex center and inducing a corresponding response at the muscular level which heightens the existing neuromyogenic spasm. The wonder is that all such bladders do not end quickly in a chronic fibrotic contracted state. Some do, in fact, but the majority demonstrate an amazing capacity to resist such change for long periods of time irrespective of the type of therapy offered.

The urinary cesspool offers a poor bath to the ureters. Bacteria are given a constant opportunity to ascend these structures via the lymphatics, or during episodes of obstruction via reflux. Ureteritis and periureteritis must ensue. The normal elastic muscular wall loses its propulsive capacity. Ureterectasia ensues interspersed by areas of stricture leading to the most undesirable combination of infection and stasis, a self-perpetuating cycle which must inexorably end with invasion of the renal collecting system and eventually the parenchyma itself, a silent pyohydronephrosis.

Another local process, perhaps even more common, but less well understood, is the bizarre change in the anatomy of the bladder which occurs in the face of neurogenic dysfunction. Trabeculation often appears, the normal relationship at the uretero-vesical junction changes causing a saccule to occur in that part of the bladder wall. The competency of the uretero-vesical junction is impaired and reflux into the upper urinary tract occurs. It is a variable phenomenon at first, later becomes permanent and massive with destruction of renal function through back pressure and ascending infection.

Unfortunately, until recently, these complications remained largely unsuspected and were discovered only when loss of renal function put the process on the symptomatic level. Now those responsible for the care of the patient so involved have included measurement of renal function, intravenous pyelography, and cystography as a routine part of the follow-up in

addition to the attention usually given the neurosurgical and orthopedic problems.

The therapy of these complications, once they are evident, offers a real challenge to the ingenuity of the urologist and neurosurgeon. Reflux, when first detected, and when associated with a normal upper urinary tract by intravenous pyelographic techniques, may be watched conservatively, for it is variable, may disappear spontaneously, or may remain static for long periods of time. If, by contrast, follow-up studies show progression, and especially if such progression is associated with recurrent bouts of sepsis, re-institution of vesical drainage is indicated. From here on additional therapy is open to debate. Direct reimplantation of the ureter into the bladder and uretero-lysis in the opinion of the author have no value whatsoever. Restoration of the oblique course of the ureter in the bladder wall, invaginating cuffs, et cetera, all aim at reconstitution of the uretero-vesical junction. Those who have employed them report initial fair results, but none have had the opportunity of long-term observation. These procedures must be performed under the most unideal conditions, that is, a chronically infected tissue bed, and a bladder still possessed of its basic defect. One cannot help feel a certain degree of pessimism for the eventual success of such measures. However, an open mind on the subject is a healthy attitude. Hutch, as well as others, have reported the use of sacral rhizotomy in these patients converting an upper motor neurone lesion to a lower motor neurone type. They have demonstrated dramatic improvement in the degree of reflux and degree of dilatation of the upper urinary tract. This observation seems worthy of additional investigation.

Uretero-vesical stenosis or stricture offers a somewhat different problem, and demands a more vigorous and perhaps a more radical approach. Supravesical deviation of the urinary stream is often imperative in these cases. Ureterostomy or nephrostomy may be life saving in cases of severe uro-sepsis with obstruction as temporary measures, but in the long term situation they are obviously not ideal and are fraught with secondary complications by reason of the changes they induce. Transplantation of the ureters into an isolated segment of terminal ileum with cutaneous urinary ileostomy has proved very satisfactory eliminating further complications at the bladder level. This technique has been employed in 27 patients with upper urinary tract complications attendant on spinal cord disease by the author with good functional results over a six-year period of observation. This is true both of children and adults. Those patients do least well whose degree of permanent renal damage is such that they cannot handle the extra absorptive load. Hyperchloremia and acidosis with further damage to the function of the tubule often ensue in such instances. Uretero-ileal neocystostomy has also been employed for this purpose. This has the advantage of reconstruction employing the normal urinary outlet. In two cases in which this was used by the author, satisfactory renal function ensued as long as indwelling catheter was maintained. While voiding function off catheter was possible, it was incomplete and residual urines increased with decompensation of the ileal loop and reflux.

One must conclude that there is no panacea to the long term complications of neurogenic vesical dysfunction secondary to trauma of the spinal cord. Constant careful observation is obviously a necessity, for these cases are prone to regression. The recent increase in interest in the treatment of these patients in many centers promises further solution to problems now obviously resistant to management.

Neurophysiology of Sexual Function

An understanding of neurogenic sexual dysfunction must be based on knowledge of the normal physiology of the primary and secondary sex glands and their nervous system connections. For this reason, as in the discussion of neurogenic vesical dysfunction, further remarks will be prefaced by a short review of normal sexual function.

The ingenious plan of nature permits the pituitary gland to concentrate on matters of growth for the first fourteen years of life thus enabling the young male to attain the stature necessary to protect his progeny. By age fourteen, the young adult has attained his growth and is ready for certain specializations which will change him from his neuter state to a physically mature individual capable of perpetuation of his species as well as protection of his progeny. This is brought about by the production of two gonadotropic pituitary hormones which selectively stimulate the seminiferous tubule to produce sperm, and activate the Leydig cell to manufacture the male sex hormone, testosterone. This dual function is the foundation for future generations, for the process of spermatogenesis permits fertilization and the production of male sex hormone creates the capacity for it.

The primary effects of testosterone on the secondary sex characteristics of the male such as growth of the genitalia, hair distribution, voice, muscle mass, bone

growth, et cetera, are all well known and need not be repeated here. They obviously augment a process already started by the pituitary gland. Of greater interest to this discussion is the effect of this steroid on the accessory sex glands, the prostate and seminal vesicle. The endocrine influence of testosterone on the gland cells of these structures promotes the production of a fluid which will provide the means of transport for the sperm at the time of ejaculation. Little was known of their function until the recent researches of Charles

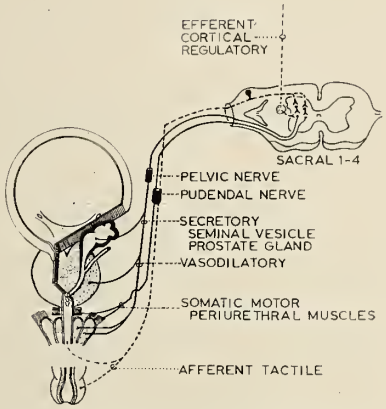


Fig. 6. The neurophysiology of erection and somatic aspects of ejaculation.

Huggins. He has shown that the prostate gland under the influence of this testicular hormonal stimulus produces a "resting secretion" of some 2 to 3 cc. per day which is washed out unnoticed in the urine. During sexual excitation, this resting secretion is augmented through parasympathetic secretory activity to twice this volume to provide 85 per cent of the ejaculatory mass while similar nervous system stimulation of the seminal vesicle accounts for 15 per cent of the volume. The seminal fluid thus produced is rich in the cations Na, K and Ca and the anions of Cl and Citrate. Glucose is found in large amounts. The lipids cephalin and cholesterol are present. The enzymes B-glucuronidase, acid phosphatase, alkaline phosphatase, and aconitase are recovered as well as fibrinolysin and fibrinogenase responsible for the clotting and liquefaction mechanisms characteristic of semen. Certain vasodilatory substances and smooth muscle stimulants are present as well. These are mentioned to indicate the rather complex nature of these fluids, all present by reason of endocrine stimulation augmented by a parasympathetic secretory effect on the individual gland cells.

These isolated bits of information obviously demand correlation if they are to be pertinent to the present subject. This correlation is provided by a discussion on the nervous system connections available to the sexual system at puberty, or before.

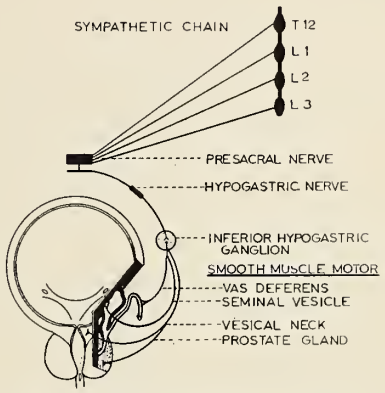


Fig. 7. The sympathetic component of the act of ejaculation.

Erectile Function.—Again, to consider this matter from the standpoint of orderly development, the most primitive nervous system connection is the reflex arc having to do with the process of erection. Interestingly enough it has no initial sexual connotation, for all males possess the capacity for erection at birth and at this time its initiation is usually the stimulus of a full bladder, a stimulus which persists throughout life and outlasts the sexual origins of the act by many years. This simple reflex arc is diagrammatically illustrated in Figure 6 by tracing the afferent impulse from the posterior urethra or the glans penis via the pudendal nerve to the sacral cord (1-4) where synapse occurs and efferent vasodilatory fibers pass out over the pelvic parasympathetic pathway to the arteries of the corporal bodies, cavernosa and spongiosum, where they are vasodilatory and to the muscle wall of the venous sinuses to which they are inhibitory. As a result, engorgement of the vascular spaces occurs and is maintained until the process reverses itself. Like vesical function, this purely lower motor neurone reflex action is augmented at puberty by the development of upper motor neurone connections by which the act of erection can be initiated through efferent cortical impulses, and also inhibited as well, a matter of considerable concern in functional impotence.

Whether the intiating efferent impulse is genital or cortical, erection will occur and is accompanied now by certain secretory pelvic parasympathetic functions made possible by a prostate gland and seminal vesicle

previously attuned as target organs by the testicular steroid, testosterone. These gland cells then become active in their secretion and produce a fluid greater in volume and quite different in chemical composition from the resting secretion. The glandular spaces become engorged and are thus prepared for the process of ejaculation.

Ejaculatory Response.—The parasympathetic effect is now augmented by certain general adrenogenic sympathetic activities (Fig. 7) such as an increase in blood pressure and increase in peripheral blood flow, and also by more specific sympathetic effects on the smooth muscle of the bladder neck (allowing it to contract and thus prevent retrograde ejaculation with subsequent destruction of sperm. This sympathetic effect on the vas deferens is an aid to propulsion of spermatozoa to the ejaculatory duct, on the seminal vesicle to evacuate its content into the same duct and finally on the prostate gland itself. The culmination of these stimuli result in massive contraction of peri-ductile and glandular smooth muscle with sudden evacuation of the combined products into the posterior urethra.

The bolus of semen thus produced sets up certain afferent stimuli in the posterior urethra which again are mediated over the somatic system via the pudendal nerve to the sacral cord and from there may reach higher cortical and subcortical levels as proprioceptive sensations which are interpreted as a need for subsequent motor activity over the same somatic pathway permitting the striated periurethral muscles to evacuate the content of the urethra by tonic contraction and relaxation. The sensory awareness of these processes of ejaculation and passage of semen along the course of the urethra may be considered collectively as the orgasm.

Thus, in summary, erection and ejaculation are entirely separate functions of the autonomic system both employing the somatic nerves and the striated muscles serving them in an adjunctive fashion. Although separate, they are not independent, for the same stimulus that initiates erection sets up parasympathetic secretory glandular activity which is the bridge to subsequent expulsion of these products of secretion by the periglandular and periductile smooth muscle, a sympathetic nervous system effort.

Any consideration of sexual dysfunction in trauma to the spinal cord must then consider parasympathetic, sympathetic and somatic nervous systems. The parallelism between this innervation and that of the bladder makes this task somewhat easier.

Measurement of Sexual Dysfunction

The period of spinal shock following acute trauma to the spinal cord will divorce the genital system of its neuromuscular and neurosecretary connections just as it robs the bladder of its peripheral nervous system. Under the circumstances, the primary and secondary sex glands continue to function as cellular endocrine units, but stimulated evacuation does not occur. With return of function, concern is centered about the remaining deficit. What will the sexual capacity of the individual be? To answer this question, the physician must consider the problem from three main aspects: gonadal, neuro-muscular and psychic.

The Gonadal Defect.—Does the paraplegic have an alteration in the process of spermatogenesis? Is he capable of fertilizing should his neuromuscular function permit? The answer to these questions is not easily arrived at. Generally speaking, the paraplegic is beset by many concomitant problems affecting his general health. His endocrine system must meet the demands of stress both acute and chronic, his nutrition is usually poor, anemia is present, chronic infectious processes are usually present in the kidney, bladder and over the cutaneous surfaces. Even a normally functioning male might be expected to show an oligospermic response under the circumstances. Those who have studied the matter have reported both decrease in testicular mass and variable disturbances in the process of sperm formation.

The testicular atrophy observed in a significant percentage of paraplegics is of undetermined origin. Attempts have been made to attribute it to a direct neurogenic factor without much success. More likely, it is the result of the debilitating process generally present.

There is no question but what the germinal epithelium is altered after spinal cord trauma. Klein has shown modifications as early as the fourth to tenth day. Bors, in his study of 34 patients, showed variations in 31 of the 34. The most consistent finding was spermatogenic arrest, a potentially reversible process. In a few cases, the findings suggested permanent damage. Bors postulated that these findings were secondary to changes in the heat control mechanisms. The Leydig cell or interstitial cell seems to be unaffected. The 17-ketosteroid excretion from these patients is usually normal, and in some is higher than normal. In the latter, urinary estrogen levels were also high and urinary gonadotropin titers low. This has been attributed by some to a possible adrenal cortical over-

activity on the basis of stress. Such adrenal cortical excess could impair spermatogenesis through disturbance of the pituitary-gonadal axis or by direct action of androgens on the germinal epithelium. It is of interest that gynecomastia has been reported in paraplegic males in a frequency greater than normal. Cooper reports an incidence of 22 per cent. Whether this is on a direct endocrine basis or whether it is related to malnutrition remains undetermined. Most likely it is non-specific.

The relatively high incidence of epididymitis and epididymo-orchitis secondary to genito-urinary drainage problems has already been mentioned. It too must be added as a frequent cause of testicular dysfunction of a permanent sort both by reason of destruction of the seminiferous tubules through inflammatory disease and obstruction of the duct system by the same process.

Neuromuscular-Neurosecretory Defect.—Two questions will suffice to determine the nature of the nervous system defect: Is the patient capable of the process of erection? Is he able to ejaculate?

Erection is a purely segmental reflex function dependent upon an intact sacral reflex arc. Destruction of the sacral segment of the cord or transection and destruction of the cauda equina and pelvic parasympathetic plexuses will prevent its occurrence. Absence of erection on the basis of such injury is usually associated with loss of the bulbo-cavernous-rectal reflex, a patulous anal sphincter and autonomous vesical function. In all other types of cord injury whether parital or complete, irrespective of the level involved, erectile function should be present.

Unfortunately, the type of erectile function which remains after recovery from spinal shock may at best be described as capricious. Erection is frequently uncontrolled and uninhibited. It accompanies massive reflex activity in the lower extremities, and may be abnormally sustained, in which case it is termed priapism. Some reporters have felt that this is characteristic of the high cervical lesion. Actually it does occur more commonly in this group (14 per cent) but may be found in disturbances of the cord at any point above the sacral reflex arc in from 3 to 10 per cent of patients. In many instances, by contrast, erection is incomplete, is difficult to initiate and is not sustained thus preventing effective sexual intercourse. In most instances the level of the lesion will determine the presence or absence of erection, but subsequent experience is needed to predict whether the remaining abilities are sufficient to permit function.

Ejaculation is a more complex spinal segmental reflex function involving the parasympathetic secretory stimulation to the accessory sex glands, the sympathetic smooth muscle expulsive capacity of the same structures plus closure of the vesical neck, and finally somatic striated muscle activity via the pudendal nerve and sacral arc to forcibly expel the semen from the urethra. Any discussion of disturbances of this function must therefore consider all three nervous system units. In brief, it may be said that ejaculation is abolished by cord damage between the sixth thoracic and third lumbar segments. To abolish the ejaculatory response effectively, damage must be extensive within these limits. Perhaps the factor most responsible for the variability of reports in the literature on this matter is the tremendous overlap of the sympathetic supply. Whitelaw and Smithwick, in this country and S. S. Rose, in England, have recently reported an analysis of patients subjected to sympathectomy with reference to disturbances of sexual function following this operation. They concluded that removal of the ganglia to L-1 on one side and D-12 on the other, will in no way disturb the process of ejaculation. In some instances, this was carried to L-2 bilaterally without loss. However, complete removal L, 1-3 bilaterally usually results in loss of this capacity. However, trauma is seldom this selective, and the second step in the ejaculatory response must also be considered, namely, the stimulus set off by the bolus of semen in the posterior urethra with efferents synapsing in the sacral cord to return via the internal pudendal nerve to the periurethral muscles to set up the forces of expulsion. Loss of the sacral cord and cauda equina, of course, will abolish this aspect of ejaculation.

The Psychic Defect.—Except in patients with an incomplete lesion, most paraplegics do not experience the sensory orgasm characteristic of the neurologically intact male. Statistical surveys of large numbers of paraplegics report a high percentage who state that if they are able to engage in intercourse they experience a certain degree of libidinous sensory response. This is not necessarily of a normal voluptuous character but usually a vague sense of satisfaction. Talbot reports that a large number of paraplegic men under his observation who are impotent are less disturbed by the loss of voluptuous gratification than by their general sense of inadequacy.

It is also true that in those patients fortunate enough to recover without significant neurologic deficit, there are some who remain impotent without apparent

organic explanation. It should be remembered that the lower motor neurone control of the various reflex sexual functions is under the influence of both facilitory and inhibitory upper motor neurone stimuli. Often the failure to erect is a functional or psychic problem amenable to care when approached from the emotional aspects of its origin. As might be expected, this factor while common in the general public, is relatively uncommon in the person with permanent spinal cord injury. In fact, the paraplegic usually shows an amazing ability to adjust to the situation, once he understands it, making use of what capacity remains to the best of his ability.

In summary, it may be said that statistically about two thirds of paraplegic and quadriplegic patients are capable of erectile function, in most instances reflex in character. Probably between one third and one half of these are capable of intercourse with or without ejaculation and with some degree of satisfaction. However, only a small per cent are actually fertile (5 to 15 per cent). These figures are based on patients surveyed in institutions and may not be accurate for this reason, but in general reflect the observations of most workers. These statements refute the popular belief that most patients so involved are totally inadequate. As such, they provide a reason for hope so important in the rehabilitation of individuals so unfortunate as to have sustained permanent damage to the spinal cord.

REHABILITATION — A REVIVAL

Rehabilitation is as old as Man or Medicine.

The splint to support the injured limb is contemporary with the discovery and the use of fire. The carvings on the Old Egyptian Tomb (2380 B.C.) portrayed the first crutch.

Hippocrates (400 B.C.), in the book "On Surgery," said, "It should be kept in mind that exercise strengthens and inactivity wastes."

Herein lies the basic philosophy of rehabilitation, whether ancient or modern. This is the ammunition with which to combat the ravages of disease, disability and immobilization.

What a splendid beginning. And when Ambroise Pare (1550) wrote, "I dressed him and God cured him," he unwillingly added the ultimate to what must be the code of every beloved physician—

Exercise strengthens,
Inactivity wastes;
I dressed him,
God cured him.

FREDERICK C. SWARTZ, M.D.
President, Ingham County Medical Society
—From *Medicinia*, February, 1962

Pressure Sores in Paraplegic Patients

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THE THEME of the care of the paraplegic patient is rehabilitation. A key factor in rehabilitation is the prevention of pressure sores. The term pressure sores deserves a word of explanation. A "decubitus" ulcer implies a relationship to the recumbent position (Latin: lying down). When the paraplegic begins to assume the upright position during the course of his rehabilitation, ulcers are apt to develop at the ischial tuberosities which bear most of his weight while sitting. As rehabilitation progresses, the pressure of braces and splints, unless carefully padded at pressure points, are prone to cause pressure sores. Therefore, the term "pressure sores" seems more adequate for the description of the ulcers which can occur in the paralyzed patient.[1]

Permitting a pressure sore to develop is an unforgivable sin in the medical and nursing professions. If this concept could be more universally accepted and stressed, our problem of teaching prophylaxis to the paraplegic and demanding the execution of these teachings by physicians and nurses would be greatly simplified. The reward would be a marked reduction in the number of paraplegic patients requiring surgical treatment for pressure sores.

The factors that play a part in the formation of pressure sores can be outlined as follows:

1. The complete immobility of the paralyzed individual.
2. The loss of sensation below the causative lesion.
3. The tendency to moisture of bedclothes and skin of the pelvis and adjoining areas in one who is incontinent of urine and feces.
4. The vasomotor disturbance in all cases, particularly in the high cord lesions, where splanchnic nervous control is lost.
5. Configuration of the bony skeleton that leaves unguarded promontories from shoulders to heels to bear dead weight of the paralyzed patient.

Close clinical observation has elicited the development of pressure sores where all acceptable methods of prophylaxis have been followed. The experimental work of Bedford, Cosin and McCarthy[2] in their preliminary report points out that if all, or a large part of the weight of the body is supported upon such a prominent part as the elbow or heel, very high pressures are recorded; and this, coupled with the fact that movement of the limbs may produce shearing strains, accounts for pressure sores being common in these areas. If care is taken to insure that the patient's position does not produce these high pressures, and rubbing movements of the pressure points over bedclothes are avoided, a pressure of 40 mm. Hg. on an air mattress is sufficient to prevent ulceration in the prone or supine position. In the lateral or sitting position, however, a pressure of 50 mm. Hg. is required for light patients, 70 mm. Hg. for medium weight patients and up to 90 mm. Hg. for heavy patients. Sitting in the upright position, the pressure on the ischial tuberosity region may be even greater.

Considerable emphasis has been placed in the recent literature on the prevention of *recurrent* ulceration in paraplegics.[4] It would appear that even greater emphasis should be given to primary pressure sore prevention, although it must be granted that 100 per cent prevention is not attainable. It must be remembered that once an ulcer is established it is difficult to cure.

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A disturbed metabolic state is responsible for both the development and the chronicity of pressure sores.[3] It has been stated that a hemoglobin of less than 12 Gm. per 100 cc. and an inadequate serum protein level are causative factors. We believe that most of these patients, due to the chronicity of their problem, have a contracted blood volume and we strive for a hemoglobin level of 15 Gm. per 100 cc. during the phase of prevention as well as during the operative management phase. Nitrogen balance is difficult to maintain in paraplegics or in any patient kept at strict bed rest for a long period of time since, under such conditions, the loss of metabolites through the urine is greatly increased. Therefore, a diet high in protein supplemented by vitamins and iron is essential for the remaining lifetime of the paraplegic.

Such modalities as the Stryker frame or preferably the Circ-O-Lectric bed and the propitious use of foam rubber mattresses on a firm base with added foam rubber rings or lambs wool protection of vulnerable pressure points aid in the prevention of pressure sores. Turning the patient every two hours is desirable.

The paraplegic patient must be admonished from soiling and strict attention must be given to the skin. There is some disagreement among those who care for paralyzed patients on how the latter point should be achieved. We advocate scrupulous attention to cleanliness suggesting the use of a bland soap following soiling. After careful drying, the application of a cream rich in lanolin, such as Nivea Cream, applied by finger tip massage appears to have merit.

Flexor spasms of the extremities contribute to the development of ulcers since they cause friction against the bed and prevent the lower extremities from full extension. This results in undue pressure, particularly on the trochanteric areas. Rhizotomies thus serve as a practical method of correcting the more severe forms of flexor spasms.

Some emphasis has been placed on prophylactic ostectomy of bony prominences for the prevention of pressure sores. Seldom, however, do patients or surgeons manifest much enthusiasm for this approach to the prevention angle. Early ambulation with well-fitted and padded braces aids greatly as a preventive measure.

When a paraplegic patient has a pressure sore which fails to heal by conservative measures, radical surgery is indicated. The concept of the surgical care of the paraplegic made an improved change during and immediately following World War II. The surgical approach to the problem since then has become increasingly bolder with manifestly improved results.

The basic principles now followed for the surgical care of pressure sores have been well outlined by Griffith and Schultz[4] and are essentially as follows:

1. Excision of the ulcer, the surrounding scar and the underlying bursa, if present.

2. Resection of the underlying bony prominence. This includes the medial, articular and lateral crests and posterior iliac spines for sacral ulcers; the entire greater trochanter for trochanteric ulcers; and the entire ischium from the pubis to the acetabular rim for ischial ulcers. Also, one must excise any surrounding soft tissue calcification.

3. Careful hemostasis using fine catgut ligatures and the Bovie unit when needed. Continuous postoperative wound suction using the Gomco pump or the Hemo Vac unit has greatly reduced the incidence of postoperative hematoma formation if used for three or more days following surgery.

4. The rotation of an adjacent muscle or fascial flap into the operative site aids to obliterate dead space and provides a vascularized pad against future pressure.

5. Closure of the wound with a large regional skin and subcutaneous flap, and where necessary, the application of a split-thickness graft in the bed from which the flap has been rotated to allow closure without tension. It should be remembered that, where possible, flaps should be planned so their scar margins will not be at areas of future pressure.

The patient will come to surgery well prepared if the criteria outlined for the prevention of pressure sores have been carefully observed. Likewise, fewer and fewer patients will require surgery for pressure sores if those criteria are strictly followed. If surgery has become necessary, these measures will have to be rigidly followed during the immediate postoperative period and for the remainder of the patient's life.

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Orthopedic Rehabilitation of Cord Injuries

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THE PATIENT who suffers a cord injury stands a much greater chance of living out his normal life than ever before. Improved care during the acute stage, better nursing and improved medical and surgical techniques have decreased complications and have improved the life expectancy of these patients to the point that their rehabilitation has become one of the real challenges to the medical profession. The cord injury patient, especially the one with cervical cord involvement, has often been felt to be a poor candidate for rehabilitation. Improved techniques in functional training and recent developments in assistive devices now make it possible for every patient to regain some degree of independence.

The majority can be nearly self-sufficient. Many of them can be economically rehabilitated. It would appear that the cord injury patient need not be a custodial burden who, in addition to his physical paralysis, is paralyzed in his social, emotional and economic potential.

Spine Stability

Stabilization of the unstable spine is of prime importance to prevent additional neurological damage which may result in death or loss of previously spared nerve roots. Stabilization maintains the reduction and allows for earlier secure healing of the spine and, therefore, earlier mobilization of the patient.[1,2]

Stability of the spine in the dorsal or lumbar area is much less a problem than in the cervical spine. If the facets are dislocated or if there are pedicle or neural arch defects, prolonged immobilization is necessary before stable healing occurs. If open reduction of dislocated facets is found to be necessary and if laminectomy is thought to be important by the neurosurgeon, concomitant fusion and internal fixation of the spine by the orthopedic surgeon should be done.[9] This will assure the patient a stable spine in a shorter period of time.

Stability is more critical in the cervical spine. Protection of undamaged nerve roots and protection of the cord and its residual function may be the difference between life and death or in the preservation of important residual muscle function which is so necessary in the use of assistive devices. Protecting one nerve root may make the difference between the patient being dependent or independent. Skull traction will usually result in reduction of the vertebral elements. If facet locking is irreducible, open reduction and posterior fusion and wiring, with or without laminectomy, is indicated (Fig. 1).

Anterior spinal fusion has been a very rewarding method in our experience. Fusion can be accomplished from C2 to T1 using this approach.[2] We have used autogenous tibial bone, placing the graft between the vertebrae above and below the lesion by a distraction and impaction technique. A gutter is cut in the anterior portion of the in-between vertebra to accept the graft. Intervertebral disc material is thoroughly removed and replaced with bone chips. As perfect a reduction as can be achieved is insisted upon. The AP diameter of the neural canal and the normal height of the cervical spine should be maintained (Fig. 2).

We feel that the majority of cervical spine injuries severe enough to cause quadriplegia deserve spinal fusion. Most injuries have been anterior dislocations or fracture dislocations, explosion fractures, posterior dislocations and uncomplicated wedge compression fractures. If conservative treatment is decided upon, the patient should remain in tongs for eight weeks and then be checked with flexion and extension x-rays. If the spine appears stable, further immobilization is necessary for another six to 12 weeks. Even after this



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period of time, a certain percentage will have late loss of reduction. Posterior spine fusion can be done at the time of laminectomy. Anterior spine fusion is usually done in the following one to three weeks. The patient is left in tongs for one to six weeks postoperatively, depending upon the stability of the spine. He is kept on the turning frame for six weeks after surgery and then transferred to a regular bed wearing a neck brace. Three months after surgery, healing is usually secure enough to allow full wheelchair activity.

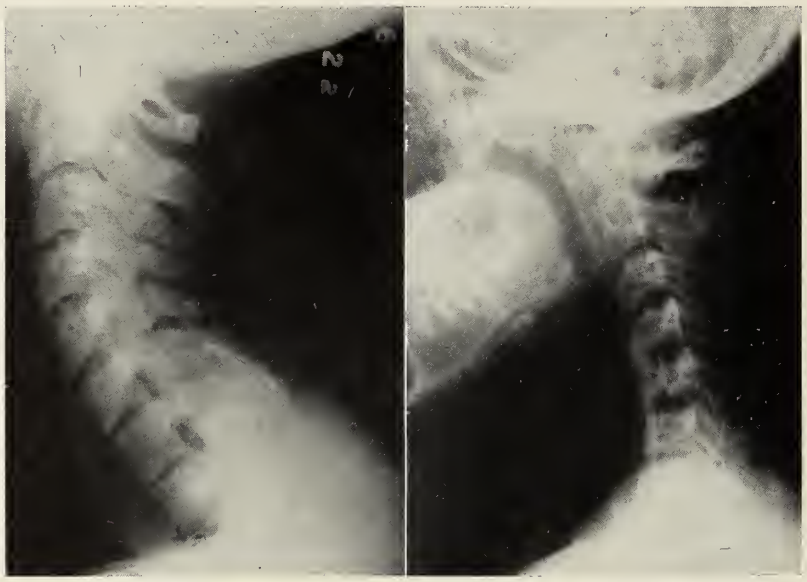


Fig. 1. *(left)* Patient had posterior fusion C6-T, for locked facets, C6 on C7. Roentgenogram demonstrates solid fusion and wiring technique, one year post-fusion.
Fig. 2. *(right)* Patient had compression fractures C5 and C6 with a subluxation of C5 and C6. Roentgenogram demonstrates secure anterior fusion C4 to C7, three months post-fusion.

Hand Surgery

Reconstructive surgery of the hand, utilizing known techniques of tendon transfers, tenodesis and arthrodesis, can obtain prehension without the need for assistive hand braces in the C7, C8 root levels.[3,8] Functional hand bracing should always precede these procedures. Surgery in the cord injury patient should only be carried out by adequately trained physicians who are willing to follow through with the team approach to a total rehabilitation program.

Rehabilitation

Rehabilitation should be started the moment the patient comes into the hospital for the care of his acute injuries. Transection of the spinal cord too often predicts an inevitable course of multiple decubiti with irreversible deformities and prolonged hospitalization. With proper nursing and physiotherapy methods, the patient need not have these complications. These patients require the best of nursing care.

Nursing Care

Orthopedic nursing as practiced in most general hospitals leaves a great deal to be desired. Care of these patients requires experienced and specially trained personnel. This nursing advantage has been a prominent factor in the successful care of the cord injury patient at Mary Free Bed. It would appear worthwhile to list the nursing outline as practiced at Mary Free Bed. The turning frame of the Stryker, Foster and Circ-O-lectric bed types has been a great advantage in the care of these patients (Fig. 3). There should be strict observance of a turning schedule, usually one hour prone and two hours supine. The extremities should be positioned to avoid pressure on the heels. The patient is securely tied, and safety measures are to be observed around-the-clock. A padded footboard is usually used, as are special sponge rolls or blanket rolls to protect pressure points, especially of the heels, elbows, back and sacral areas. Special chin and head piece improvements have been made on the Stryker frame. A versatile mechanic, to modify frames or other devices to each patient's special needs, is helpful. Sheepskin has been used with great success as padding material and has been

an excellent aid in avoiding maceration of the skin and preventing decubiti.

Skin care is probably the most important responsibility of the nurse. As previously stated, the best treatment for pressure sores is prevention. It can be said that there is no excuse for the development of a pressure sore. If the patient is properly protected in his positions, has frequent skin examinations and skin care, these decubiti can be avoided. Reddening of the skin is considered a first degree ulcer, blistering of the skin is a second degree ulcer. If these occur, complete avoidance of pressure until they resolve is important. Axillary, perineal and genital areas require special care and should not be neglected in the daily bath. The mouth should be kept clean with tooth brushing and frequent mouth washes. The nails should be kept short and clean and well-shaped and pressure should be avoided, especially over the great toe to prevent the development of paronychiae.

Attempts to establish a bowel pattern should be started early. The patient should be started on enemas every other day and placed on dietary additions such as prune juice and gelatin capsules. Daily laxatives such as milk of magnesia or Colace capsules or suppositories may be used in lieu of the enemas. Enemas at a regular hour each day are indicated if the laxative or suppository are not effective. Oil retention enemas are used for hard feces. Special awareness and routine checking for fecal impaction is important. Bladder care has been previously discussed and requires a full understanding by the patient and nurse attendants.

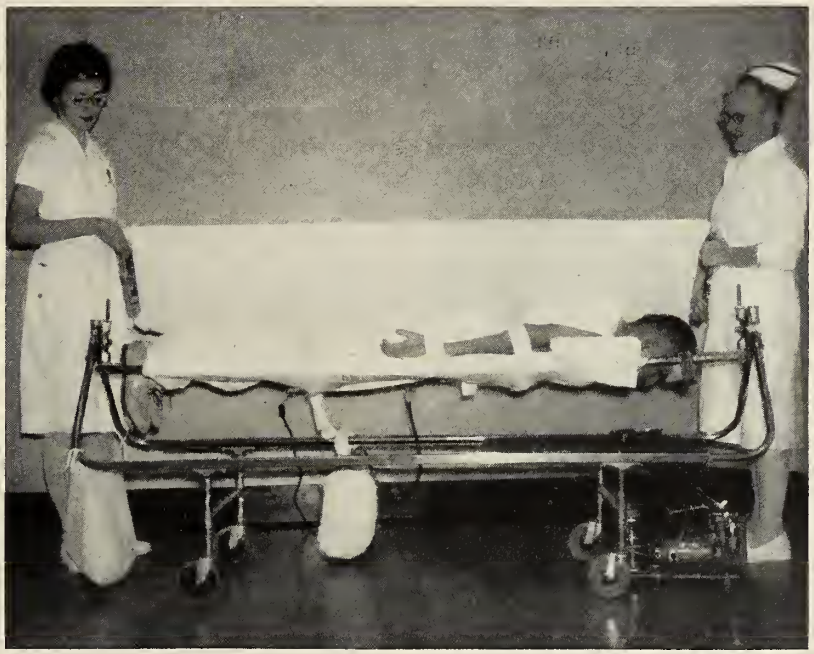


Fig. 3. Turning frame used in early stage of treatment. Careful positioning and adequate safeguards to prevent the patient from slipping are important factors to observe in the use of this frame.

Diet should consist of a high vitamin, high protein diet with daily multiple vitamins. In the presence of decubiti, high doses of vitamin C are also prescribed. Obesity should be controlled. Cord injury patients should be well-nourished but thin.

Minerva casts or body and neck braces should never be applied during the acute or early convalescent stages because of the hazard of development of silent decubiti on anesthetic skin under these devices. When braces are used in rehabilitation, they should be very carefully padded and checked for the development of pressure sores. Skin care should be emphasized between each application of special equipment. Ace bandages or elastic stockings may be used to control swelling of the lower extremities when the patient is in a chair or on a tilt table. The patient with a high cervical lesion, where tracheotomy is used, should never be out of sight or hearing. There should be frequent insertion of drops in the tube followed by deep bronchial tree aspiration. There should be scrupulous care of the inner cannula and frequent changes of the aspirating catheter and set-up.

Tracheotomy tubes are frequently changed as indicated by the attending physician, usually every 2 weeks. The cold steam humidifier is occasionally used.

Physical and Occupational Therapy

The most important aim in the entire rehabilitation of the paraplegic is to help the patient to experience

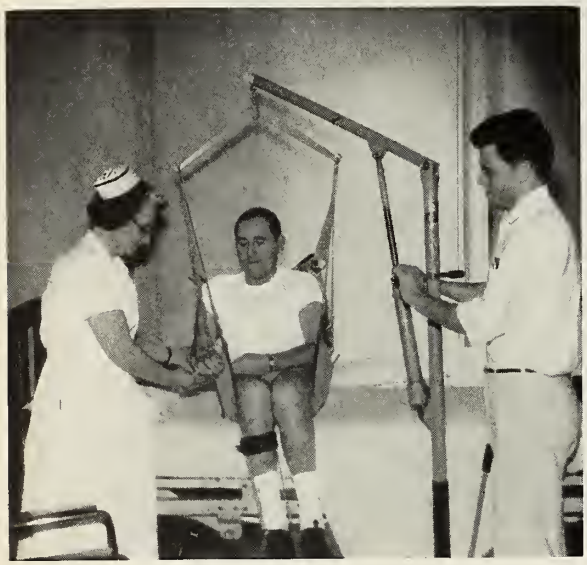


Fig. 4. Portable hydraulic lift used to transfer patient to wheelchair. This can be handled by one individual in the patient's home.

again what it means to accomplish a goal. This is the starting point for his re-education in doing. Once he realizes that he can actually perform a given task, he will try for the next more difficult step. The patient will then become more active in his entire attitude and gradually will try to take part in life around him, eventually finding his place as a working member of his community. Functional training should be started as soon as he has recovered from his acute condition.[4]

A careful analysis of the level of the cord injury and institution of methods to prevent contractures and to maintain strength in the remaining musculature is important. Simple exercises done frequently throughout the day, positioning to avoid either extension or flexion contractures, and early prescription of functional hand braces, are important. Exercises for the upper extremities in the paraplegic can be either isotonic-isometric, progressive resistance with weights or against resistance by the therapist. Exercising the remaining muscles in the quadriplegic may make the use of special devices possible.

Before the patient has become free of his turning frame, he may be shown exercises which he can carry out throughout his day. Mat and wheelchair exercises and transfer exercises from bed to wheelchair and toilet are taught. Patients are encouraged in self-care and, wherever possible, are required to take care of their own needs. Training in the use of crutches with braces should be strived for in the quadriplegic.

Special Equipment

Special equipment such as wheelchairs with knobs on the rims for easy propelling (Fig. 5), hydraulic lifts (Fig. 4), low beds with Balkan frames with overhead trapeze straps for making easy transfer by the patient from bed to wheelchair are helpful. Wooden stools can be used to help transfer from the wheelchair to the toilet. Ball bearing feeders or suspensory feeders, dynamic bracing and CO_2 muscles all have a place in the special needs of these individuals (Fig. 6).



Fig. 5. Quadriplegic C7 level patient practicing exercises in type of wheelchair usually prescribed.

Electric wheelchairs are also important in the high cervical lesions. Any of these devices may enable a patient to be independent. Their cost is much less than the cost of custodial nursing.

Psychological Rehabilitation

Psychological rehabilitation is possible in its fullest sense only when physical restoration is as near perfection as possible. Severe depression can be expected frequently as the patient realizes the permanence of

his paralysis and can see the many problems that lie ahead of him. It is difficult for the patient who has suddenly lost cord function to accept his image as a paraplegic. During the early period of rehabilitation, a cord injury patient may be a problem in discipline. He may have severe emotional outbursts and other evidences of lack of discipline. He may refuse treatment and may refuse to cooperate with nurses and therapists. Discipline at this stage may tax the understanding of those around him. There should be no recrimination, force or undue sympathy. The patient should be deprived of his audience and be warned that further outbreaks will result in the withdrawal of all services. The patient's family must understand the patient's medical problem and help the patient accept the fact of his disability. The team approach of physicians, nursing, occupational therapy, physical therapy, speech, music, school, all coordinated into a close-knit, harmonious group will aid the patient's morale. Being with other patients with similar problems also makes acceptance of the problems easier.

Planned extracurricular activities of a recreational nature are carried out. A Para-Pals Club that the patients can manage themselves and have informative lectures by members of the rehabilitative team all seem to help. Weekly movies, church services, frequent visitation by the clergy, parties with special entertainment for holidays, weekly services of a librarian, music therapy, and mixed group, supervised parties have been part of the picture which has made the rehabilitation at Mary Free Bed a success.

Treatment Planning

Accurate assessment of a patient's potential and subsequent planning of a realistic program depends, in a great degree, upon the determination of the remaining segmental innervation of the extremities. A simple muscle test will usually enable a physician to classify these patients and prognosticate their level of independence.[7] It has been shown that 90 per cent of lumbar paraplegics, 55 per cent of dorsal paraplegics and 0 per cent of cervical quadriplegics can use crutches. It has been further shown that those who return to work constitute 50 per cent of lumbar paraplegics, 40 per cent of dorsal paraplegics, 28 per cent of C6, C7 and lower cervical quadriplegics, and 12 per cent above C6. Those who return home constitute 92 per cent of lumbar paraplegics, 90 per cent of those having thoracic and lower cervical lesions, and 50 per cent of those having higher cervical lesions.[6] The difference noted in these various levels makes obvious the need for classification.

In the paraplegic patient, rehabilitation is frequently dependent on arm strength, ability for knee extension and pelvic stability. Most sacral paraplegics get along well with short leg braces and forearm crutches, and



Fig. 6. C5 level quadriplegic patient using overhead balanced slings, flexor hinge splint with CO_2 muscle. "Muscle" is triggered by nudge control against chin. "Ball bearing" feeders are prescribed later for these patients.

can usually do without wheelchairs. In lumbar lesions, both lower extremities are paralyzed, the abdominal and back muscles are stable. They get along well with long leg braces and can walk with crutches though many of them prefer the wheelchair.

The low thoracic paraplegic patients have weakness in the abdomen and back as well as instability of the pelvis and legs. These patients use three to five times as much energy as the normal person in attempting to walk with crutches or braces. The wheelchair is the best mode of transportation; though the braces help in transfer to the car and other areas. These patients may sit as long as 10 or 12 hours a day if they lift up with their arms every half hour to relieve pressure on the buttocks.

In the high thoracic paraplegic patients, muscles of the trunk are usually unstable; though they have normal upper extremities. They need a special wheelchair with removable arm rests to make easy transfer pos-

sible. They may require spine fusion for stability of the spine for sitting.

In the classification of the cervical lesions, using the level of muscle power rather than the bony level of injury is important. The triceps, wrist extensors, shoulder and elbow control and the trapezius and neck muscles are the important muscles to evaluate. In the C8 lesion, all of the muscles of the upper extremity are intact except for the intrinsics of the hand. The patient may have very excellent rehabilitation except for some hand weakness and a tendency for intrinsic-minus positioning of the fingers. His triceps are intact and this makes for easy transfer from the bed to the wheelchair.

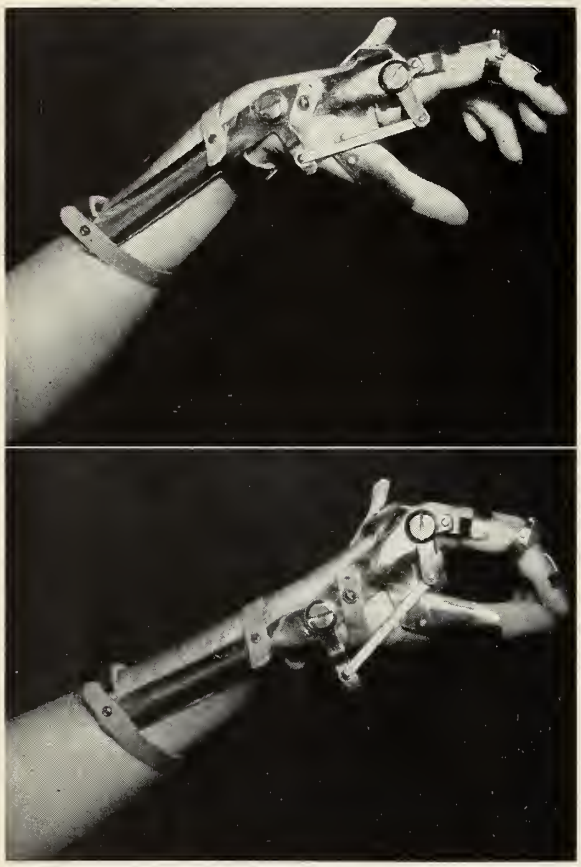


Fig. 7. *(Above)* "Flexor hinge splint." (Courtesy Orthopedic Supply Co., Downey, California) Traumatic quadriplegic, C7 level. Splint used for flail hands which have good dorsiflexors of wrist. Flexion of wrist opens fingers. The same splint may be powered by a "CO_2 Muscle" when the movers are paralyzed. *(Below)* Extension of wrist closes fingers. Provides prehension with sensation.

At the C7 segment level, the hand muscles and the triceps are out. The biceps makes up for the triceps in transfer from bed to chair but the patient requires an overhead bar and trapeze slings. These people are especially prone to develop abrasions on the skin from transferring from bed to wheelchair and prophylactic skin care is very important. These people have an active wrist extensor and are excellent candidates for the use of the flexor hinge splint in which 75 per cent of the strength of the wrist can be transferred to the fingers. These patients can also benefit from hand surgery. The patient can often propel himself if he has knobs on the hand rims of the wheelchair.

At the C6 segment, the wrist is out as well as the motors of the shoulders and elbows. There may be some biceps action. He needs assistance to get in and out of bed. He has no hand function but can have some finger grasp by the use of the flexor hinge splint (Fig. 7) and CO_2 muscle. At the C5 level, all the arm muscles are paralyzed and only the trapezius and neck muscles are present. These patients require assistive devices which include electric wheelchairs, hydraulic lifts, ball bearing feeders and CO_2 muscles and flexor hinge splints.

Quadriplegic patients will tolerate surgery if their chest capacity is evaluated preoperatively. They are to be watched carefully for postoperative lung infections and may require respiratory assists if they have only partial diaphragm action. Dehydration is tolerated poorly in these patients and should be watched postoperatively. Hypertension may occur frequently during the operation and should be controlled by drugs.

Muscle Spasm

Muscle spasm is greater the higher the lesion, but is most frequently not a great problem in rehabilitation. Mild muscle spasm may be an advantage, and may allow the paraplegic to sit, or may allow the quadriplegic to stand. Unless the spasm is severe, it should not be treated by anything but peripheral neurectomy and tendon releases.[10] However, if it is severe and disabling, neurosurgical procedures as previously outlined would be of great importance.

Autonomic reflexia which is seen occasionally in the quadriplegic is manifested by increased sweating, increased blood pressure, bradycardia and vasodilation and dizziness and may occasionally be brought on by a distended bladder. If this syndrome does not respond to conservative measures of drugs and progressive training, neurosurgical procedures may be indicated.

Bilateral High Thigh Amputation

Bilateral high thigh amputation has been considered by some authorities as being an excellent adjunct to

the rehabilitation of the paraplegic.[5] In our opinion, it should never be considered unless the patient has severe, unresponsive decubiti or skin infections, chronic and severe thrombophlebitis and edema, unhealed fractures, osteomyelitis or uncontrolled contractures of the knees and feet due to severe spasticity. There is no question that amputation cuts down on a large peripheral reflexogenic zone and, therefore, will cut down on general spasm. The patient is lighter and can transfer in and out of the wheelchair with increased agility. The psychological impact on the average patient, however, restricts the use of this particular procedure.

Architectural Hazards

Ideal rehabilitation includes both physical, emotional, social and economic. Frequently, the wheelchair patient is restricted in where he can go because of architectural hazards.[1] There are twenty-eight million people in the United States that have some form of disability. Approximately one million people are on crutches or in wheelchairs. These people should be considered in the design of public building. Public buildings should be planned to have at least one access door which will allow the entrance of wheelchair patients. Ramps, doors at least 32 inches wide, single-effort opening type doors should be provided. Stairs should have hand rails with no greater than a 7-inch riser. Floors should be non-slip. Toilet rooms should be able to handle a wheelchair. Telephones and water fountains at wheelchair height are important in certain buildings.

Many universities are now including these architectural requirements to enable paraplegic victims to obtain an education. The University of Illinois has received nationwide recognition for its attention to these details. Many paraplegic and quadriplegic patients can be made completely self-sustaining in their dormitories and in their school situations if these small details are carried out.

Vocational Rehabilitation

Federal-State programs of vocational rehabilitation services such as physical restoration, training in job skills, counseling, job placement, and diagnostic medical-surgical and hospital services are available. Sheltered workshops provide the facilities for the disabled who, although unable to work in industry, are capable of some productivity. There are an estimated 800 sheltered workshops in the Nation. Many small companies provide employment only for the disabled. Several large corporations are noted for their extensive in-plant training and placement programs towards the disabled citizen. Many more patients can be made economically independent if the employers are made aware of the abilities of the cord injury patient.

It has been shown that rehabilitation will pay off in dollars and cents. The median annual wage before rehabilitation in a study of a group of severely handicapped patients was $464 per year. After rehabilitation, it went up to $2,292 per year. It has been estimated that income taxes paid by rehabilitated workers have amounted to ten times the sum spent in their rehabilitation.[11]

Summary

The tenet long held that injuries of the spinal cord inevitably result in total disability is no longer true. These patients can most commonly be returned to home care and frequently to productive vocational activity.

Acknowledgment

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What the Practicing Physician Should Know About Workmen's Compensation

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"THERE is very little written about the history and development of the Workmen's Compensation program in Michigan and nothing has been published on its operation as it relates to vocational rehabilitation. We cannot look to our national capital for operational data since there is no federal program, nor can we be directed to a general description or appraisal of the program as a whole since each state has developed its own program to meet its own peculiar needs. In some foreign countries, an alternative to workmen's compensation has been adopted, a kind of huge social insurance scheme that takes care of a variety of services. In a recent presentation before the Kalamazoo Rehabilitation Association meeting, it was pointed out as a justification for workmen's compensation, as against the general idea of public welfare, that "our system has a great advantage as a morale factor—the man who gets hurt and draws benefits as a matter of right is a prouder man than the one who gets hurt and receives benefits as a matter of public charity."

The Workmen's Compensation Act in Michigan was passed to meet specific needs. There had been wide dissatisfaction with the employer's liability at common law for injuries suffered by his employees. In 1912, the legislature enacted a simple workmen's compensation law providing modest benefits to employees incapacitated through accidents "arising out of and in the course of their employment." The Workmen's Compensation Act may be considered the first piece of social legislation in the history of the state. The benefits, however, are not in keeping with those of more recent social legislation. It is important to understand the relative importance of the wage loss theory of compensation benefits. When a man is hurt, he draws benefits as long as his injury prevents him from returning to employment and earning wages equal to what he received previous to the accident. Thus it is to the employer's advantage to get the injured man back on the job and terminate his insurance benefits. The incentive of avoiding workmen's compensation costs results in the employer's finding a job for the industrial accident case with the least possible delay. An average of 93 per cent* of the injured workers return to employment in the plant where injured within twenty weeks from the date of injury. Thus the Workmen's Compensation Act exerts tremendous leverage on the employer to rehabilitate his own injured employees.

The Workmen's Compensation Act makes the employer responsible for providing medical care, as well as weekly income payments to workers who suffer injuries or disabilities connected with their work. Most employers carry insurance to cover the cost of weekly benefits and medical care, although the larger manufacturing concerns in the state are generally self-insured. Thus the Workmen's Compensation Department exercises the same function of supervision whether the company insures its employees or insures with a carrier.

The history of workmen's compensation in Michigan has paralleled very closely the development in safety practices. As the compensation law was broadened—brought in to cover more things—safety practices improved. As it became more expensive to meet the requirements—as occupational diseases were made compensable, for example—employers were more ready to adopt safety practices that eliminated the incidence of the disease. As an illustration, the Director of Workmen's Compensation Department pointed out that the Department had a "drawer full of lead



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*Statistical Division, Workmen's Compensation Department.

poisoning cases" in 1937, at which time the workmen's compensation law was amended, whereby lead poisoning become compensable for the first time. Soon lead poisoning became so rare as almost never to occur. Safety, of course, is its own reward, but it should be remembered that the philosophy of workmen's compensation has stimulated the introduction of many safety measures.

The Workmen's Compensation Department is a legal processing agency, not a case working agency. The file that is assembled on each injured worker varies from a single letter, memorandum or sheet of basic information known as a Form-100, to a file inches thick containing extensive hearings and court records. There are no medical reports in their files except as they become a part of the testimony in a contested case; there is no case recording. Originally, a program of modest beginnings, workmen's compensation has become a remarkably large operation costing Michigan employers $68,000,000† per year figured only on the basis of insurance purchased in the state. This does not include the self-insured which constitute approximately 40 per cent of Michigan's insured working force. Workmen's compensation is a major source of support for thousands of families or single individuals in the state during some part of a year and sometimes throughout a year; it is a source of livelihood for hundreds of lawyers, doctors, insurance agents; it is a source of debate at almost every legislative session and almost yearly the legislature grants additional liberalization in the form of concessions so as to better meet environmental needs.

Although there are some 33,000 compensable industrial accidents occurring in Michigan on an average each year, there are many more that are of such minor nature as not to be compensated. It should be remembered that "no compensation shall be paid under the Act for an injury which does not incapacitate the employee for a period of at least one week from earning full wages, but if incapacity extends beyond the period of one week, compensation shall begin on the eighth day after injury." Of the 33,000 compensable accidents there were 458 cases referred to the Division of Vocational Rehabilitation during the fiscal year, 1960-61. The Vocational Rehabilitation counselors further screened these cases and found that many of these injured employees had returned to their former jobs or had been rehabilitated by the employer into work they could do within the plant; some were so severely disabled that they had no work potential and could not take advantage of Vocational Rehabilitation services. The actual number of persons whose names were added to Vocational Rehabilitation rolls during the last fiscal year was 222. These were accepted as rehabilitation cases and were offered services according to their needs.

All professional persons should know the meaning of terms commonly used in connection with workmen's compensation as these terms are related to his own operation:

1. "Specific loss" which accounts for only 3 per cent of compensable industrial accidents in the state comprises 75 per cent of workmen's compensation referrals to the Division of Vocational Rehabilitation. Accidents involving specific loss of members are compensated according to a specific schedule for a stated number of weeks as each loss is defined in the Act.

"Total and permanent" disability, which is classified as a part of "specific loss" is defined as any of the following enumerations: total and permanent loss of sight of both eyes, loss of both legs, loss of both arms, loss of any two members listed above, "incurable insanity or imbecility," permanent and total loss of industrial use of both legs, both arms or of one leg and one arm. The Vocational Rehabilitation worker should know that compensation is paid according to schedules regardless as to whether the injured worker is back on a job or not—as stated before, compensation for specific loss may extend beyond the period of wage loss.

2. "Total incapacity," a classification which accounts for the bulk of the industrial accident cases, refers to those injured persons who are incapacitated for work by the disability.

3. "Partial incapacity"—the injured worker (not a specific loss case) sometimes rejects vocational rehabilitation services on the basis that his compensation benefits will terminate if he is "rehabilitated" and returns to work but at a lesser wage because of his impairment. It is important for the counselor to explain to him that when the injury results in a partial disability or incapacity so that the employee is unable to perform the duties of his previous job or he requires more time to perform them, or he is placed on a job that is less remunerative than his previous employment, the employer is required to pay compensation in the amount of two-thirds of the difference between his average weekly wage before the accident and the average weekly wage he is currently earning, but not

†Michigan Workmen's Compensation Rating Bureau (estimate).

to exceed amounts allowed in the compensation schedule.

4. "Lump sum redemption" or "redemption of liability"—when payment of compensation has been made for 26 weeks, the parties can redeem the balance of the liability for compensation with a lump sum payment provided it has the approval of the Workmen's Compensation Department and if the payment of a lump sum can be used as a means of settling a disputed case or can be shown to be a means of promoting the rehabilitation of the injured worker. It is reasonable to observe that generally the cases that are redeemed are not cases of specific loss.

5. "Lump sum advance"—an injured worker may request a lump sum advance for a specific purpose which, if approved by the appeals board or court, will enable him to carry out his plan of rehabilitation, improvement of his home, or any other objective stated in his request. This may be awarded from the compensation next falling due or from the compensation last falling due as the court may determine. The amount is discounted at a prescribed percentage rate; hence the amount of lump sum advance is never equal to the sum of compensation benefits for a given period. The lump sum advance is final only to the extent of compensation paid, while redemption closes the case completely. The client continues to be eligible for medical services where lump sum advance is granted. Generally a lump sum advance is requested on specific loss cases. The reason is obvious. Legal counsel is seldom required for a lump sum advance.

6. "Second injury"—reference is frequently made to the desirability of having the Second Injury Fund extended with the hope that it will aid in hiring the handicapped. It should be understood that according to definition, Workmen's Compensation regards a person as "totally and permanently" disabled if he has suffered a second specific loss—that is, the loss of a hand or arm or foot or leg or eye in addition to a similar previous loss. (This is a very different interpretation from that of Vocational Rehabilitation in which ability to work is the criterion, rather than the degree of loss.) Compensation for "total and permanent" disability amounts to more substantial benefits than is the sum of compensations for two specific losses of members. It is that difference between the benefits for the loss of a second member and benefits for "total and permanent" disability that is paid for out of the Second Injury Fund. Some persons are advocating that the principle involved in the Second Injury Fund be extended to cover a disability that is due to a current injury aggravating a pre-existing condition. At the expiration of a pre-determined number of weeks, compensation would be paid out of a general second injury fund. Seven states currently have such a law on their books, but to date there are no figures to substantiate the hope that this expanded law is a boon to the disabled.

Who Is Subject to the Act?

All public employers and all private employers who regularly employ three or more employees at one time are subject to the Workmen's Compensation Act. Farm laborers and domestics are not covered by the Act unless the employer assumes liability by the purchase of a valid compensation insurance policy.

Medical and Other Care and Services

What rights does the injured worker have in addition to weekly compensation benefits? Under the above heading the Act states that "the employer shall furnish or cause to be furnished to an employee who receives personal injury arising out of and in the course of his employment, reasonable medical, surgical and hospital services, medicines and other attendance or treatment recognized by the laws of this state as legal . . ." The employer shall also supply to the injured employee "dental services, crutches, artificial limbs, eyes, teeth, eye glasses, hearing apparatus and such other appliances as may be necessary to cure . . . and relieve from the effects of the injury." When physical therapy and occupational therapy are a part of the physical restoration program for which the injured employee is being treated under the Workmen's Compensation Act, they may be provided by the insurer or employer. Based on this paragraph, the premise that vocational training for the person who requires a change of objective in order to be rendered employable and "to relieve from the effects of the injury" is a part of "other care and services." Most of the insurance companies have agreed to underwrite tuition, books and maintenance during training for selected Vocational Rehabilitation clients who were injured in the course of employment.

Referrals to Vocational Rehabilitation

It is not the function of Workmen's Compensation Department to screen cases as we generally think of screening, nor is it possible for them to do so because of the limited information at hand. Workmen's Compensation Department keeps records of specific loss

cases and it becomes a clerical procedure for a staff member automatically to refer all of these cases to the Division of Vocational Rehabilitation provided the specific loss falls within a range from very serious to an agreed upon minimum. The minimal loss at which persons may be considered to have a potential vocational handicap includes all accidents of amputation of two or more fingers or a thumb. Other cases —not specific loss—are selected if they have suffered a severe accident or have been out of work for six months or more due to disability. Many of the persons screened will not be eligible because the disability is slight, but this decision as to eligibility is made by the Vocational Rehabilitation worker and is determined in relation to criteria established by agency regulations.

The evidence that a person has a disability is determined by medical examination. *It should be noted that the payment of benefits to the injured employee does not constitute legal proof of the existence of a disability as far as workmen's compensation is concerned.*

Histochemical Study of Leucinaminopeptidase and B-glucosidase by Use of New Substrates

(Abstract of paper presented at spring meeting of Detroit Physiological Society)

Two new substrates have been synthesized by Dr. Jerome Horwitz and associates at the Detroit Institute of Cancer Research for the study of enzymes in normal and pathologic tissue including cancer. These substrates are: 3-(5-bromoindolyl)-β-D-glucopyranoside for the study of β-glucosidase in tissue and DL-N-(5-bromoindol-3-yl) leucinamide hydrobromide for the study of leucine aminopeptidase in tissue. The substrates depend upon the principle that when the enzyme in tissue splits off the glucose group in the former and the leucinamide group in the latter that the final reaction product is an insoluble highly colored indigo which can be readily seen in the microscope in cells and tissues at the sites of enzymatic activity.

The β-glucosidase can be demonstrated by this means in tissues and cells and occurs mainly in the preputial glands and reticulum cells occurring in the spleen and the lamina propria of the small intestine. It occurs in smaller amounts in other organs as the adrenal and liver. This is the first time β-glucosidase has been demonstrated histochemically in tissues. As this is actually a plant enzyme, it accounts for its sparse distribution in animal and human tissues. Under pathological conditions evidence so far has indicated that it is increased in certain reticulum cell sarcomas induced in animals by cell-free agents (virus?). Here there is a marked increase in the positive enzyme reactions in reticulum cells in the spleen, lymph node, Kupfer cells of liver and liver cell parenchyma. The nature of this reaction is not fully understood at the present but is being studied in other tumors and cancers.

Leucinaminopeptidase (LAP) can be demonstrated in tissues by means of a substrate indicated above which has the leucinamide group. This new substrate forms an indigo-like compound which can be readily seen under the microscope in slides which have been incubated in the substrate. LAP has a wider distribution in tissue than β-glucosidase. It can be readily seen in the kidney, small intestine, cells in the endometrial stroma of the uterus and in the reticulum cells in the spleen, lymph node and thymus. The conditions under which the LAP can be demonstrated depends upon the species of animals, the influence of hormones and other unknown factors acting on the host. The enzyme is present in cells and tissues showing a breakdown of proteins to peptides and the further breakdown of peptides by LAP. Thus it would indicate catabolic processes in the cell and tissues. In some instances, the tissue around a cancer shows increased activity as well as the tumor, particularly when it has spread to the neighboring lymphatics.

The technique and application of these two substrates have been worked out in normal tissue. Work is underway to study these enzymes in cancer and various other pathologic conditions in order to determine their significance. This can now be done with the two substrates and the methods developed by the authors.—PAUL WOLF, M.D., BJARNE PEARSON, M.D. and MARIAN ANDREWS, B.S., Department of Pathology and Detroit Institute of Cancer Research, Wayne State University, Detroit, Michigan.

Rehabilitation

A Hospital-Based Community Service

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RECENT trends in medical care are directed toward an emphasis on rehabilitation of the patient. Doctors have always been interested in their patients' recovery from illness, but now it is being recognized that even the severely handicapped may be restored to work or self-care. The prevention of weakened muscles or contractures, stiffened joints, and other complications of chronic illness are important to achieve this result. Greater attention is also being paid to the psychologic, emotional, economic and social impact of illness upon the patient and family.

One year ago, the James Decker Munson Hospital in Traverse City completed plans for a new and comprehensive service for physicians of the region and the people of our community. These proposed to extend hospital services to the patient's home after the acute phase of illness is cared for within the hospital. It was expected that such a service would assist the family physician in the care of his patient and would reduce the need for, and the costs of continued hospitalization. It is particularly applicable as a continuity of service in long-time or chronic illness.

A factor leading to these plans was the building of the Grand Traverse County Medical Care Facility in physical conjunction with the James Decker Munson Hospital. The proposal was that the facility would purchase needed services from Munson (food, laundry, heat, drugs, x-ray, laboratory, et cetera). Thus available funds could build more bed space. The basic ideology was in the field of progressive patient care; acute care in Munson, transfer to the facility with lower daily bed cost, then to home, or to a nursing home and then to home. Rehabilitation procedures were to be emphasized throughout this progression in patient care.

To accomplish these plans, the medical staff of Munson Hospital changed its bylaws to form a Department of Rehabilitation Medicine, with sub-sections of Physical Therapy, Occupational Therapy, Social Service, Home Care, and Vocational Rehabilitation. This department was to be the focal point about which all rehabilitation services were to be oriented.

A medical social service worker, a registered nurse, a secretary and a part-time medical director were employed. The W. K. Kellogg Foundation supported this program with a grant for salaries, travel and educational efforts to demonstrate the value of such a service for improvement of community health.

Studies were made of local needs in the field of medical care. Conclusions arrived at were that all physicians were interested in the complete recovery of their patients; that there was a distinct lack of knowledge of methods to accomplish total rehabilitation; and of the functions of, and the procedures necessary to obtain aid from existing social service agencies; and that there was a need for organized special interest services that were not locally available.

To meet these needs, the Department of Rehabilitation Medicine embarked upon a fourfold program: first, an educational program for the physicians in our region in the various facets of total rehabilitation of their patients; second, to attempt a better coordination in the use and services of the various social and governmental agencies in the community; third, to organize and supply specialized services previously not available to physicians and patients; and last, to establish a home care program for post-hospitalized patients.

From the start, it was agreed that the family physician would be the most important cog in our operation; that services of the department would be available to both inpatient and post-hospitalized patients of Munson Hospital, the Grand Traverse County Medical Care Facility, and of the Tri-County Health Department, provided that the family physician was cognizant of and did the actual referring; and that there would be no responsibility for therapeutic services, but that recommendations for a plan of therapy would be made to the family physician. His would be the responsibility to implement the program. At

his request, the department would arrange for and supervise necessary services. Thus our function is mainly that of a consultive service through a team patient evaluation process, followed by cooperation and coordination of the recommended therapy.

Educational Program

The educational program consists of self education of staff personnel through conferences and organized instruction courses, rehabilitation discussions with individual physicians, movies on rehabilitation subjects shown at medical staff meetings, patient evaluation conferences attended by staff physicians and internes, organized programs on rehabilitation of a specific disease, and periodic "rehabilitation news letters" sent to all physicians of the region.

Amputee Clinic

Early in our experience it was determined that there was a great need for an amputee clinic. The nearest organized service for amputees was 150 miles away. A competent and experienced prosthetist had recently moved to Traverse City, as did an orthopedist who was interested and dedicated to the care of amputee patients. Consequently, it was easy to start this specialized service. Our amputee clinic is held every two weeks and has been very successful, and particularly useful to clients of our local Division of Vocational Rehabilitation. Evaluation is made of the condition of the stump, the associated joints and muscles, the circulation and stamina of the good limb, and of the fit and use of the prosthesis. Suggestions and advice are given as to the proper care and preparation of the stump, the correction of contractures, the proper type of prosthesis for the vocational needs, and emphasis is placed on training in its use. The economic, vocational and psychologic factors are thoroughly explored. The basic evaluating team consists of an orthopedic surgeon, a prosthetist, physical therapist, occupational therapist, social service worker, home visiting nurse, a counselor of the Division of Vocational Rehabilitation, and the family physician. We insist on continuous periodic reevaluation of the patient and appointments are always made for the next visit. In addition, nonscheduled home visits are made, if within a reasonable distance, by the social service worker or the home visiting nurse to check on patient cooperation, stump wrapping, wearing and use of the prosthesis. Assistance is given in vocational placement. It is felt that an amputee should never be completely discharged from our service.

Patient Evaluation Conferences

A Patient Evaluation Conference is held on alternate weeks at the Amputee Clinic, with an internist added to the team. Arrangements are made to include additional specialty consultive services when indicated by the application blank. Past and present therapy is reviewed, as are the possible causes and the course of development of complications. The disabling condition is thoroughly analyzed. Consideration is given to the vocational significance, with emphasis on what the patient was able to do in the past, what are his present capabilities, what can be done to increase these, and what can be expected in a future vocation. The social service worker reports on the economic needs, the family and home situation, and the impact of the disability upon patient, family and society. Our objective is a look at the whole patient.

Following each conference, a recommendation is sent to the family physician, suggesting additional diagnostic, specialty consultation, or therapeutic procedures, a continuation of the present type of physical therapy or the use of new forms, and the institution of a therapeutic type of occupational therapy. In addition, recommendations are made which would help solve the economic and vocational needs.

Home Care Program

Our Home Care Program is a hospital based and supervised community service with the objective of extending hospital nursing into the home. The hope is that we can reduce the length of hospital stay and at the same time materially improve the post-hospitalized patient care. It was determined that such a program should be medically dominated, with paramount consideration given to the desires and orders of the family physician. Because nursing services would be given principally in the home, it was decided that full responsibility for these should be in the Department of Rehabilitation of the hospital instead of a part of general hospital nursing services. Thus, it was felt, the element of rehabilitation could receive greater emphasis.

Before starting this program, the visiting nurse was sent to take an established, intensive course in rehabilitation nursing. Cooperation and additional training were obtained from both our departments of physical therapy and occupational therapy. Daily staff conferences are held with the visiting nurse, the social service worker and the medical director of the department. These consist of a thorough discussion of the problems presented by each referred patient:

the medical implication; the social, economic and emotional factors; the needs as to type of nursing care; the cooperation of the patient and family in following instructions; and the progress in improvement of the patient.

Home care services are applicable to patients about to be discharged from either Munson Hospital or the Medical Care Facility. The home visiting nurse interviews the patient in the hospital, consults with the family physician as to the kind of nursing services which are to be continued in the home, and becomes acquainted with the patient and family. The home conditions and facilities are reviewed and suggestions made for such home assists that might be helpful. A conference is held with the physical therapist to determine the type of therapy which should be continued at home. Special attention is given to increase abilities in the activities of daily living for the severely handicapped. Frequent reports as to patient progress are made to the attending physician. Home care is discontinued by order of the physician.

As an additional duty, the home visiting nurse has assumed the responsibility for transportation of referred newly born premature infants, using a portable incubator, from regional cities and towns to the Premature Center at Munson Hospital. When the infant is ready for discharge, the home situation and facilities are evaluated. This is done with the cooperation and assistance of the county health department nurses. Instructions are given to the mother as to the precautions necessary for the home care of a prematurely born infant. We insist on periodic reports of patient progress, and expect to continue these until the infant reaches school age.

Social Service

The social service worker is an important participant in all our services. She interviews the patient and family, searching for problems precipitated by illness, and develops a plan of action to solve them. This may involve simple counseling, but in most cases other duties are needed. These may include assistance in preparing the home and family for return of the patient, or placement of adults in nursing homes or children in foster homes when indicated. Specific consideration is given to the economic impact and arrangements are made for financial assistance when needed. Cooperation of the various governmental and community social service agencies is sought and attempts are made to coordinate their efforts. Assistance is given in obtaining their services. In addition, considerable time is spent in stimulating the patient to resume normal community life and in helping arrange for a future vocational objective.

Summary and Conclusion

The organization and operation of a plan to extend hospital services into the community by a regional hospital is presented. It is directed toward assistance to the family physician in the total care of his patient, especially during the post-hospital period, by the application of all the techniques of rehabilitation medicine. It has proven to be a successful project. During its first six months of operation, by a very conservative estimate, over three hundred hospital-bed days were saved, which at our present hospital costs would amount to a saving of over $10,000.00. Much assistance was given to patients in the psychologic and economic fields. Frequent follow-up contacts have materially reduced regression in patient progress.

Intramural Hematoma of Jejunum

A case of intramural hematoma of the jejunum is reported in a patient who had been receiving anticoagulant therapy (Dicumarol) for a coronary thrombosis. The condition was diagnosed preoperatively from the roentgenograms. Because of the possibility of cancer (vs. hematoma), exploratory laparotomy was undertaken and the roentgen diagnosis was confirmed. Blood was removed from the peritoneal cavity, and the patient made a good recovery. Three months later, he was asymptomatic and without signs of obstruction. The roentgen findings consist of evidence of an intramural mass associated with crowding together of the valvulae conniventes, producing a coil-spring appearance.—G. J. Culver, H. S. Pirson, E. Milch, L. Berman, and F. J. Abrantes, *Radiology*, 76:785 (May) 1961.

The Future of Physical Medicine and Rehabilitation

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The Rehabilitation Institute is a part of the developing medical center and is affiliated with the Wayne State University as one of its teaching facilities.

The author believes that specialized rehabilitation hospitals such as the Institute should be the fountainhead of research and education to prepare personnel for positions in Physical Medicine Services of general hospitals with the simple measures which can be taken by the attending physician, the rehabilitation nurse and, possibly, by a physical therapist. If more intense services are needed, he believes that patients should be transferred to one of the rehabilitation centers such as he directs. However, he now receives many cases which could have been handled adequately at the general hospital level . . . with only slight alterations in the program there. In other words, Doctor Schaeffer is of the opinion that most rehabilitation can be done in the general hospital and that the specialized centers should be used only in the most severe cases where the combined efforts of a comprehensive staff are needed.—EDITOR

ALL OF US working in the field of health try to project a bit and predict what the next few years will bring. I personally believe we are on the threshold of an ever-increasing need for rehabilitation services. The population is aging and we have a large number of people living to an age when chronic irreversible disease is prevalent. It is most probable that new breakthroughs in the cure and prevention of the disease processes which destroy in the younger age groups will be made much sooner than the control of the degenerative diseases. Hence, the situation referrable to chronic illness will not be better but, rather, worse in the years to come. In the past, the concepts of rehabilitation have been applied primarily to those patients having the more obvious types of chronic illness, such as polios, amputees, paraplegics and the cerebral palsied. Now we are being called upon to apply these principles to more and more of the group of patients with subtle or less disfiguring type problems, such as the cardiacs, the chronic pulmonary cripples, and in many cases to the mentally retarded. Those of us involved in rehabilitation programs not only must anticipate an increase in the number of patients who have conditions such as we presently treat, but must meet the challenge presented by other disease categories.

Another encouraging sign is the ever-increasing awareness and acceptance of rehabilitation by the medical profession and the lay public. As medical schools continue to increase the quantity and quality of teaching in the specialty of physical medicine and rehabilitation, there will be more demand from the younger physicians for rehabilitation services for their patients. Also the public is becoming more aware of programs for the chronically ill and will insist that such services be available when needed. In this respect, there is still much to be done to teach professionals and laity alike . . . the scope of rehabilitation but perhaps more important, to fully advise them of the limitations of our work.

At present, we are at a critical stage in development. We have several ways we can move. We can continue to develop treatment facilities wherever a need seems to exist and this, of course, is an admirable concept. But what good are treatment facilities if they cannot be adequately staffed or financed? Actually, the country today has more rehabilitation centers and facilities than can be properly staffed and many good centers are without a full load of patients because of lack of funds or staff or both.

I firmly believe that our major effort in the next few years should be in areas of education and research. This is the alternative to the proposition stated previously whereby facilities are created willy-nilly with little concern about the vital problem of keeping a good ongoing program operating.

There is a need to map a course which will lead

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to orderly growth and development of our field of endeavor.

First, the physician . . . I think that it is axiomatic that successful rehabilitation programs must include



Rehabilitation Institute

the doctor. Certainly, as a member of the rehabilitation team, he can provide the medical knowledge and direction for at least the strictly medical program. Conversely, I have seen excellent rehabilitation programming completely sabotaged by a casual remark from an unenlightened physician. The definition, scope, and aims of rehabilitation are not yet generally understood and sometimes not accepted by the medical profession. I think back three years when an internist joined the Rehabilitation Institute staff. I spent several hours with this physician explaining the program not only from the standpoint of mechanics but also in terms of aims and philosophy. After several months, I asked him how he was getting along . . . how he liked working at the Rehabilitation Institute. His response was, "Well I like it fine now but I spent about two months trying to figure out what everyone was trying to do." In other words, here is a very intelligent, competent, practicing internist, who had a good indoctrination, at least verbally, but before he understood the program fully, he worked with it intimately for several months. Results of a rehabilitation program come insidiously and it is often difficult to determine which of the many forces applied to patient problems is responsible for the results achieved. Cause and effect, in terms of medical care, can be so clearly demonstrated in many surgical conditions and in acute medical problems. It is difficult to compete for the attention of the medical student or young physician in his formative years when we speak of results achieved after four to five years of effort and still demonstrate a patient who is living with a chronically disabling condition. To get enough of the students' time to adequately present the need for rehabilitation services is difficult, yes, almost impossible, and to think of offering courses comprehensive enough to give the medical student a working knowledge of this complex process is out of the question now. The need for inspired leadership and teaching in the medical schools is ever present and is an area in which we must make a major effort even if at the expense of patient service programs. Funds for education must continue. We cannot expect our teachers in the medical schools to carry full patient or administrative loads and still prepare the type of course material which will stimulate and inspire the student. To go one step farther, it is only through stimulation of the medical student or intern that we can recruit physicians for specialty training in Physical Medicine and Rehabilitation. Today fewer than half of the available residencies in our specialty are filled and yet the shortage of trained physiatrists is greater than in any other field.

Education of the para-medical groups interested in rehabilitation is a matter of great importance. Rehabilitation is not a one-man job. It requires a melding of the skills, knowledge and abilities of many persons. Each of us operating a rehabilitation center is confronted with shortages of physical therapists, occupational therapists, social workers, nurses, psychologists, and vocational counselors to name a few. Even when we can assemble a staff, there is a need for continuing inservice education so that the basic knowledge acquired in training may be supplemented with the special techniques needed in our centers. This educational effort is expensive in terms of staff time, but essential if we are to serve our patients. My plea here is that we concentrate our efforts and funds for rehabilitation in those comprehensive centers associated with teaching institutions in order that we may eventually be able to staff facilities wherever the need arises. Progress in disseminating knowledge concerning rehabilitation is measured in fractions of an inch . . . not feet and yards. So many need to know, the learning process is long, and there are so few to teach. So much for the complexities of education in rehabilitation. Let us consider briefly, the problems of research as it concerns this field.

Rehabilitation made great strides after World War II. There was a great rush to plan and build facilities

based on the estimated need for rehabilitation services. Figures which approximated the number of individuals disabled by disease or injury were interpolated from some questionably valid national statistics. Then it apparently was assumed that the complete answer to all the problems of the disabled could be obtained by developing enough rehabilitation centers. I have never seen any valid statistics as to the percentage of those disabled who could benefit from rehabilitation services. The problem here is that the end point of rehabilitation is difficult to measure. Most of our cases end and start with pathology. We don't ordinarily "cure" disease. If it were a matter of treating the pathology in the cerebral palsied for instance, we could start at birth and treat the patient until he died. Now whether or not the treatment resolved the problem or problems created by the pathological process is more difficult of measurement than, for example, evaluating the results of treatment of appendicitis by apendectomy. In the case of children with disabling conditions, the factor of growth and development must be carefully taken into account when attempting to determine the efficacy of any program of management. Another variable is introduced when dealing with patients whose disabling conditions are characterized by exacerbations and remissions such as those with rheumatoid arthritis or multiple sclerosis. All of us working in the field of rehabilitation can quote case material where we have been convinced that our efforts were the factors which led to a successful end result. However, the operators of radon mines, the naturopath and the cultist can also obtain testimonials of success. The need to develop a valid set of objective criteria to scientifically weigh and measure the effect of our programs on the end product is essential. In the future we must be able to speak authoritatively regarding the possibility of achieving reasonable goals.

As rehabilitation facilities developed, I have had the feeling that the center management has been surprised and chagrined that the disabled have not poured into the centers in limitless numbers. There is a tendency to criticize the practicing physician, the insurance carriers, the governmental agencies, and the general public for not using rehabilitation centers completely. Here I believe that the fault lies with us. We can talk only in generalities and yet we are asking these purchasers of service to spend specific dollars in large amounts. We know or think we understand what we are selling but those individuals who are responsible for a company's or an agency's money insist on more than a trial and error approach. Let's face the fact that today the only real method of predicting the efficacy of a rehabilitation program is to try it. Let's consider just one of the many variables which is always a factor in a patient's rehabilitation effort . . . motivation. In our work, motivation plays a major role. I can estimate motivation on the basis of an interview and examination but I find that in many cases the actuality is greatly different from the estimate. Not only is it important to measure a patient's desire to do more for himself, it will become ever more necessary to develop technics and methods to stimulate this facet of rehabilitation. Basic psychological studies set up scientifically and capable of being repeated and validated, must be carried out so that we will be able to predict with reasonable accuracy the degree of motivation or lack of this vital component and its relationship to the total program.

Research into factors such as types of service, dosage of activity and duration of care for optimal restoration is needed *now*, if we are to be adequately armed in encouraging purchasers of rehabilitation to use our facilities.

Research, like education, is a slow process which cannot be expected to just happen. It requires the time and effort of trained, competent professionals. We cannot expect that a physician or a member of one of the paramedical groups can spend full time in patient care activity or administration and still have the energy to set up and conduct a valid research project.

Essentially, then, I have tried to show that the future of rehabilitation is bright in terms of acceptance and from the standpoint of increasing need. However, unless we build for the future by sound programs in education and research we will of necessity dissipate our efforts with decreasing efficiency and with less rather than more service to patients. Also only through research and education are we going to be able to convince the potential purchasers of rehabilitation services, that rehabilitation is a sound investment in our pool of human resources.

Research and education can be carried out best in institutions of higher learning. Let us, therefore, attempt to channel our rehabilitation resources in terms of money and personnel to those institutions where the greatest impact on the future of this field can be made. Let's put a sound broad base of fact and knowledge beneath what is now an inverted pyramid of theory and guess work.

Social Security Disability Benefits and Rehabilitation

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THE DISABILITY insurance provisions of the Social Security Act have been effective since 1955 and provide benefits to persons who meet the eligibility requirements. This program is administered by the Bureau of Old-Age and Survivors Insurance (BOASI) in the Department of Health, Education and Welfare. The determinations of disability are made by state agencies under contract with BOASI, and the states are reimbursed from federal funds for all necessary expenses. In all but five states, these medical-legal adjudications are made by the state vocational rehabilitation agency, which in Michigan is the Division of Vocational Rehabilitation. Monthly cash benefits are paid to (a) disabled workers who have made contributions into BOASI trust funds, and (b) unmarried disabled children over age 18 of retired or deceased insured workers, if the child's disability began prior to age 18 and continues to prevent any gainful work. Michigan processes between 1500-2000 claims per month.

Eligibility Requirements

The term "disability" in Social Security is defined by law as "inability to engage in any substantial gainful activity by reason of a medically determinable impairment that is expected to be of long continued and indefinite duration or to result in death."[1] To qualify for benefits a person must meet the following requirements:

1. The applicant's condition must be medically determinable—it must be a condition that can be confirmed by examination and studies conducted by a licensed physician.

2. The condition must be so severe that it prevents the person from doing any substantial work appropriate for his education, training and experience.

3. The condition must have persisted for at least six months despite therapy, and must be expected to continue indefinitely or result in death.

4. The condition must be such that it does not respond to generally accepted therapy. However, a condition is considered remediable only if the treatment does not involve any significant risk to the health or life of the patient.

5. The applicant must have worked under Social Security for a definite number of calendar quarters of coverage, since this protection is limited to insured workers who have been forced to stop working because of disability. This work requirement does not however apply to disabled child applicants.

Inability to Engage in Substantial Gainful Activity

A person may be unemployed for a number of reasons other than disability: for example, the hiring-practices of individual employers; technological changes in the industry in which the worker was employed; economic conditions; personal reasons. It is not necessary for the applicant to establish that he is helpless; however, inability to carry on his customary occupation is not enough to qualify for benefits.

A decision by another federal or state agency that an individual is disabled does not establish that he is also eligible for Social Security benefits, since each agency has its own eligibility criteria. An applicant drawing disability benefits under another public or private system may however submit the medical evidence that was the basis for his grant with his application for OASI benefits. In making its decision the



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evaluation team considers the evidence underlying the decision in the other disability program.

Medical Factors in Evaluating Disability

In its series of *Guides to the Evaluation of Permanent Impairment*,[2] the American Medical Association's "Committee on Medical Rating of Physical Impairment" provides explanations of two key terms generally used in disability programs, impairment and disability: (a) "Permanent Impairment"—this is a purely medical condition that physicians alone are competent to evaluate. Permanent impairment is any anatomic or functional abnormality or loss after maximum medical rehabilitation has been achieved, and which the physician considers stable or non-progressive at the time of evaluation. It is always a basic consideration in evaluating disability, but not necessarily an indication of the extent of the patient's permanent disability. (b) "Permanent Disability"—the evaluation of permanent disability is an administrative, not a medical, responsibility and function. Evaluation of permanent disability is an appraisal of the patient's capacity to work as it is affected by non-medical factors such as age, sex, education, economic and social environment, and the medical factor—permanent impairment. The degree of medical impairment is the major factor, but not the only criterion that must be considered by the agency in performing its evaluation in accordance with the law.

Eligibility requirements for OASI benefits are far more severe than for most public or private disability programs. The criteria for the level of severity were established by Social Security itself, with the help of a national Medical Advisory Committee[3] which meets on a regular basis and includes a Michigan physician. The guides are supplemented by technical training and discussion, and are intended to promote equal treatment for all applicants throughout the country. The guides are under continuing review and are revised as indicated by agency experience. The Committee also gives advice and counsel on such matters as the preparation of medical forms for use by physicians and other medical sources.

Other Factors in Evaluating Disability

Consideration is given by the state review team to such additional factors as age, education, and work experience in assessing the disability imposed by medical impairment. The physiological changes due to the aging process may result in significant limitations for the older worker; the amount of education affects the ability of the person to adjust to other types of work; an unskilled worker may be at a considerable disadvantage in the labor market, compared with the skilled worker who has a similar impairment. The final adjudication of disability must be made on the total medical and non-medical facts in each case, and the team must determine whether or not there remains a capacity to engage in any substantial work.

The Medical Report

The review teams in the state agencies and in the central BOASI office can appreciate that this nationwide disability insurance system places heavy demands on physicians who are asked by their patients to submit evidence in support of their claims. A major objective at all levels of adjudication is to promote reporting procedures that will provide specific information with the best possible economy of physician time and effort. Social Security must concern itself with proof of disability, as evidenced by pertinent history and diagnosis supported by physical and laboratory findings. It is suggested by William Roemmich, M.D., Chief Medical Officer of the BOASI Division of Disability Operations, that the physician keep in mind the following when he submits a report for his patient:

> "The medical report form is furnished for the convenience of the physician, clinic, or hospital—doctors or institutions should not feel bound by its format or brevity. What is needed is a full clinical picture of the patient's condition. This requires a history and physical and supporting laboratory findings in sufficient detail to permit a reviewing physician to make an independent diagnosis and evaluate therapeutic possibilities as well as the patient's capacity for work. The information should be as complete as that which is usually obtained from the first clinic studies done for diagnostic and therapeutic purposes. If possible, a careful description of any limitations on the patient's ability to walk, sit, stand, bend, think, hear, see, and manipulate should be included. If the physician wishes, he may furnish the requested information in a narrative statement, using his own stationery instead of the form.
>
> "A well-prepared medical report can speed the determination of eligibility for disability benefits to a disabled patient. It will also avoid the need for more correspondence for additional clinical or laboratory data."[4]

Medical-legal determinations of disability involve consideration of both medical and non-medical factors, and are the administrative responsibility of the agency. Physicians submitting reports are not expected by law or regulation to express their opinions as to whether an applicant is or is not disabled as defined in the law. Terms such as total and permanent disability should therefore be avoided, but medical im-

pairments should be described fully. Any significant deviations should be carefully described. The physician's objective measurements and observations of residual capacity contribute to adjudication of claims on a sound medical and administrative basis.

The Adjudication Process

Disabled people apply for benefits at their local OASI office. Here the applicant is given information about eligibility requirements and the kind of evidence needed to support his claim, and help in preparing his application. The applicant must supply at his own expense sufficient medical evidence to establish the presence of an injury or disease. The Social Security office gives him an explanatory letter and copies of medical report forms to take or mail to physicians or medical facilities in which he was treated for his condition. After completion by the physician the reports are returned to the local OASI office in the envelope provided for this purpose.

The OASI office secures information on wage postings from the central office to certify that the applicant meets the work coverage requirements. When the pertinent medical and non-medical evidence is in the file the application is mailed to the State Division of Vocational Rehabilitation, where it is reviewed by the Disability Determination Service.

The adjudication of disability is made by a team which includes a physician and a disability examiner trained in disability evaluation. The physician is responsible for evaluating the severity and remediability of the impairment. The disability examiner relates the implications of the clinical facts to the applicant's education, work experience, vocational skills, and remaining work capacity. The team weighs all the evidence and arrives at a decision which is signed by both members. If disability is found within the meaning of the law the team is also required to determine the date of onset, which has important legal implications. Physicians may sometimes be puzzled by state agency requests for evidence on patients they have not seen for several years; this information is needed to support the onset date of significant impairment.

The adjudication team finds it necessary in some cases to arrange independent medical examinations at government expense to supplement reports already in the file. This can be done only after the applicant has presented evidence which indicates the likelihood of severe impairment but without sufficient supporting findings. Examinations cannot be purchased, however, to relieve the applicant of his legal responsibility to supply medical evidence. Consultative examinations are authorized by the team review physician as needed in specific claims, with payment in accordance with the state medical society's own fee schedule for government agencies.

When the state agency team completes its evaluation the file is mailed to the central BOASI office for final review and action. State determinations are reviewed by BOASI to assure uniform application of guides and policies in carrying out the provisions of the law and Congressional intent. The BOASI office also notifies the applicant regarding the decision made in his case. Allowed claims are subject to periodic review to determine if disability continues, or if work capacity has been restored. Changes in the status of a person drawing benefits come to the attention of the BOASI central office through the worker's own reports, new wage postings to his account, and through reports of successful rehabilitation from the state agency.

Hearings and Appeals

Any person who is dissatisfied with the decision in his case may ask for reconsideration. In such cases the claim is again reviewed including any new evidence by both the state agency and BOASI. If the applicant is still dissatisfied he can request a hearing before a hearing examiner; this examiner makes a complete and independent review of the claim. If the hearing examiner's decision does not satisfy the claimant he may bring action to review the decision in the Federal District Court.

Vocational Rehabilitation

A major objective of the disability provisions is to help restore disabled people to gainful work. The law requires as part of the adjudication process that the claimant be evaluated for possible vocational rehabilitation services. The state review team refers applicants who appear to have rehabilitation potential to the district vocational rehabilitation offices, of which there are nine in Michigan. The referral includes copies of pertinent medical reports for consideration by the rehabilitation counselor. The medical evidence thus serves the dual purpose of providing a basis for adjudication and also investigation of rehabilitation possibilities.

To encourage rehabilitation the law permits the worker to test his ability to work for a period of up to twelve months without losing his benefits. The disability grant is thus a resource during the rehabili-

tation process, and also an incentive for the beneficiary to return to work with the help of a trial period during which he can test his work capacity.

The problem of rehabilitating more of the severely disabled persons who are drawing Social Security benefits is a matter of increasing concern to the federal Office of Vocational Rehabilitation. The accelerating volume of OASI referrals for rehabilitation services imposes a heavy burden on the already strained staff and budget resources of state rehabilitation agencies. To attack this problem requires bold new approaches through research and pilot projects. The Office of Vocational Rehabilitation has authorized and provided funds for eleven research projects which will be in operation for three years. These projects are based in accredited rehabilitation centers and represent a massive rehabilitation effort involving all appropriate disciplines to restore beneficiaries to productive living; one such project is already under way in a Detroit rehabilitation center. These projects have important implications for rehabilitation.

In summary, it can be said that the OASI-VR partnership in disability evaluation presents a challenging and unique opportunity to promote the rehabilitation of the nation's disabled manpower. The program is rehabilitation oriented and identifies potential clients for rehabilitation; it involves the worker's physician, who is interested in his patient's welfare; it protects the applicant's right to an equitable decision on a sound medical and administrative basis; the law and national policy protect the trust fund which belongs to the people against inappropriate claims that benefit neither society nor the individual.

More people should be rehabilitated but this would require more resources for vocational rehabilitation, if it is to meet this challenge. Successful rehabilitation requires a team-work approach—motivation and active participation of the disabled person; the services of the physician and community resources; acceptance by the community so that the disabled worker is given an opportunity to work and be a useful member of his community. The dividends to society from the rehabilitation approach are considerable, not the least of which is the contribution to the individual's sense of personal worth which is beyond calculation.

To explain the adjudication process and to assist physicians in completing medical reports the BOASI has prepared a 30-minute film "The Disability Decision" in cooperation with the American Medical Association. Showings are available on request to the Division of Vocational Rehabilitation or any OASI office, with the participation of a VR supervisor and physician and an OASI representative. These showings have been helpful in explaining the significant role of the physician in adjudicating claims for disability benefits.

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Just Like a Doctor's Prescription

The canons of candor require an analysis of the too often repeated slogan—"just like a doctor's prescription"—which emphasizes compounding. A private survey of retail and hospital pharmacies tells us exactly what a doctor's prescription in 1962 is like. It is not likely to be made up of more than one ingredient. The pharmacies studied were generally agreed that 75 per cent of the prescriptions filled were single directives and only 25 per cent were compounded. One pharmacy estimated as high as 90 per cent were for single items. The trend, of course, has been away from the shotgun to the high-speed rifle. "Just like a doctor's prescription used to be" more nearly expresses the situation. Why should doctors be dragged into the sales pitch anyway?

If it is unethical for a doctor to advertise, is it not just as unethical for doctors to be advertised? Decency finally prevailed when actors dressed in white coats posing as doctors in commercial presentations were removed from the microwaves. Now let us strive to have all mention of doctors removed from this great American folkway.

Every man his own lawyer, billed as "just like a lawyer's brief," makes as much sense.—*New York State Journal of Medicine*, May 15, 1962.

Mary Free Bed's Role in Rehabilitation In Western Michigan

Charles H. Frantz, M.D.
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Grand Rapids, Michigan

REHABILITATION, or the process of restoring one to his former state or capacity, is not a new concept. It has been practiced in varying degrees by physicians since the beginning of time. Over 30 years ago Dr. William Mayo wrote, "Rehabilitation is to be a master word in medicine."

The concepts and importance of rehabilitation have grown in past years and the orthopaedist has been vitally concerned with this more and more important aspect of his endeavor.

More than 28,000,000 Americans have some degree of disability. Well over a million of these individuals are children suffering from congenital malformations, diseases of the bone or its associated tissues, cerebral palsy, and poliomyelitis. Among adults, chronic disease is the number one cause of disability.

Included in the chronic diseases are the many hemiplegics resulting from cerebrovascular accidents and the many millions suffering from the ravages of arthritis and rheumatic diseases. In addition, there are over one half million adults suffering from multiple sclerosis and the other demyelinating diseases.

Trauma at work and in the home add innumerable adult cases of disability. Furthermore, the ranks of the disabled are expected to increase because of longer life expectancy and reduced mortality from congenital defects, trauma and certain disease processes.

Fortunately, private and government facilities at local, state and national levels have realized the needs of the people and have provided, among other things, crippled children services, vocational rehabilitation programs, voluntary health agencies and rehabilitation centers.

Under workmen's compensation laws, the employers' responsibility for disability from industrial accidents is assumed by insurance companies which provide medical care and use rehabilitation services of public and private agencies.



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Fig. 1. *(left)* Fracture dislocation of the hip. Fracture of femur. Peroneal palsy gait training. At this writing, the patient is back to full-time employment.

Fig. 2. *(right)* Hemiplegic housewife relearning stair climbing.

The care and rehabilitation of the afflicted and crippled children throughout Western Michigan has, for years, revolved about Mary Free Bed Guild Children's Hospital and Orthopaedic Center. Three years ago, realizing the need for an adult rehabilitation center in Western Michigan, an adult rehabilitation pavilion was inaugurated. A significant number of adult cases for rehabilitation has been added to the great numbers of crippled children suffering from polio, cerebral palsy, amputation, and the results of spine trauma.

The aim of rehabilitation, as mentioned, is to restore one to a former capacity. This consists of phy-



Fig. 3. 18-year-old post-traumtic quadriplegic patient learns self help or aids to daily living in the occupational therapy department.

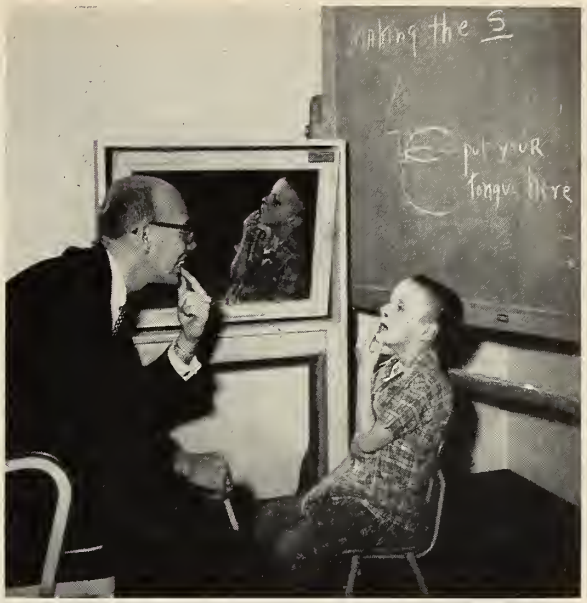


Fig. 4. This child is learning tongue and lip placement in the speech department.

CHART I

IN-PATIENT

Year	*Average Daily Census* *Cerebral Palsy*	*Amputee*	*Other*	*Total*
1958 - 1959	16	10	42	68
1959 - 1960	14	15	36	65
1960 - 1961	12	15	43	70

OUT-PATIENT	*Total Cases Treated*	*Total Treatments*
1960 (6 months)	412	1667
1961	1146	4029

Breakdown of Typical Month's Case Load

Diagnosis	*Number of Patients*
Arthritis	
Rheumatoid	4
Osteoarthritis	6
Allied Soft Tissue Inflammatory Conditions	10
Trauma	
Fractures	9
Soft Tissue Injuries	15
Amputees	
Traumatic	3
Vascular	6
Orthopaedic Post Operative Cases	
Due to trauma	7
Reconstructive	5
Neurological	
Poliomyelitis	5
Multiple Sclerosis	8
Paraplegia and Quadriplegia	5
Other	3
	86 Total

CHILD AMPUTEE CLINIC	*Number Clinic Visits*	*Number Children Served*
1958 - 1959	875	269
1959 - 1960	893	317
1960 - 1961	908	318



Fig. 5. Amputee afflicted with osteogenesis imperfecta. Muscle training in the pool.



Fig. 6. Congenital spastic quadriplegic child, learning torso control in leg stabilizer.



Fig. 7. Post-traumatic adult paraplegic patient in early stages of rehabilitation. Tilt table for erect position and stimulation of lower extremity circulation.

sical and psychological restoration of the individual, vocational counseling and rehabilitation if necessary. Without physical restoration, there can scarcely be vocational rehabilitation. Dynamic rehabilitation and physical restoration is stressed, especially among children, young and middle-aged adults (Fig. 1).

Mary Free Bed is amply qualified for this restorative and rehabilitative endeavor. Through its many years of experience there has evolved an efficient working team of doctors, nurses, therapists, social workers, and other specialists for any and all types of rehabilitation problems.

The orthopaedic staff serves as captain of the team, and by utilizing the necessary team, by careful direction and supervision can successfully rehabilitate a considerable number of handicapped persons (Fig. 2).

In disabilities of children, whatever the cause, the pediatrician is a valuable partner. In the case of the quadriplegic or paraplegic, the neurosurgeon and the urologist are co-workers, and in the treatment of cerebral palsy, the clinical psychologist offers invaluable aid.

The special skills of many other persons, including physical, occupational, speech, education and music therapists are used in the complete comprehensive program of rehabilitation. The physical and occupational therapists, in their roles of restoring muscle strength and endurance and in teaching the activities of daily living to the handicapped, form a hard core nucleus to the success of the program (Fig. 3).

Especially in cerebral palsy, the success of total rehabilitation in many instances depends upon the skillful treatment and education by the speech therapist (Fig. 4).

To all of the above-named team members must be added the invaluable assistance and coordination activities of the medical social worker.

Over the years, many children and adults have been partially or totally rehabilitated at Mary Free Bed Hospital. Chart I presents a graphic breakdown of some of the major cases treated during the period from 1958-1961.

One of the best known of the rehabilitative programs offered at this institution has been the treatment and restoration of the juvenile amputee. The need for a team approach to rehabilitation is demonstrated ideally in this program. In addition to the orthopaedist, pediatrician, psychologist, physical and occupational therapists and social worker, the services of the experienced and versatile prosthetist is essential. Just as the brace maker (orthotist) supplements the team in many cases of polio, cerebral palsy, and the other paralytic disorders, so does the prosthetist round out the team in the care of the amputee.

In addition to the many medical services needed by any patient requiring rehabilitation, there must be an adequate physical plant to accomplish the task. Adequate areas for physical activity, gait training, occupational therapy, hydrotherapy and the various electrical modalities are available (Fig. 5). A well-equipped and excellently staffed brace shop is sponsored by the Mary Free Bed Guild (Fig. 6). Prostheses are furnished by selected independent limb companies on a contractural basis.

People now seek rehabilitation services through a number of avenues. Modern physicians are highly conscious of the necessity for putting their patients back into society and industry. Welfare agencies understand the importance of rehabilitation. Most general hospitals have limited services for the acute cases in well organized and equipped physical and occupational therapy departments. Insurance and educational institutions appreciate the financial savings afforded by the dynamic rehabilitation of an individual to a useful status (Fig. 7).

The cooperation between the administration, the professional staff and the allied medical services enables a most complete rehabilitation of a large number of the more severely handicapped individuals cared for at Mary Free Bed.

Ultrastructural Aspects of Interrupted Melanogenesis

(Abstract of paper presented at spring meeting of Detroit Physiological Society)

The formation of melanin can be induced in the human albino melanocyte and xanthic goldfish yellow pigment cell (lipophore and lipocyte) by tissue culture incubation. This process of melanization has been studied by electron-microscopy utilizing a modification of Mason's ammoniated silver nitrate method for premelanin. The localization of metallic deposit from this staining has proved to be highly specific. It has been observed that the cytoplasm of unmelanized yellow pigment cells contains a characteristic cytoplasmic large body which is similar in size and distribution to the melanin granule in melanophores and which is selectively stained by the ammoniated silver nitrate method. This staining reaction is intensified when scales are incubated in tissue culture medium containing ACTH, a treatment which leads to the appearance of melanized melanocyte. It is also observed in tissue culture experiment by electron-microscopy that a portion of a lipophore contain both typically stained large bodies and 2 or 3 melanin granules in same cytoplasm.

All of the findings indicate that the yellow pigment cell has the potentiality to become a melanized cell and that its characteristic large bodies are the structural precursors of melanin granules. A parallel situation exists in the albino melanocyte from human hair. The cytoplasm of the albino melanocyte contains many similar ovoid granules of low intensity 500 mu in diameter which are also stained with ammoniated silver nitrate but not stained with ordinary silver nitrate, the same as large bodies of lipophore (premelanin characteristic). We have compared their responses in tissue culture. No effect with ACTH was seen in the ablino hair. On the other hand, when 1 per cent tyrosine was present in the incubation medium extensive melanization occurs in albino hair. These results suggest that the defect in albinism may be the lack of free 1-tyrosine available to the melanosome. The deficiency in xanthic yellow pigment cell is apparently of different nature and one that may be overcome by the presence of ACTH. The mechanism of ACTH effect may be to promote the active association of tyrosinase with the structures of the unmelanized particles.—YUTAKA MISHIMA, M.D., Ph.D. and ALDEN V. LOUD, Department of Dermatology, Wayne State University College of Medicine and Detroit Institute of Cancer Research, Detroit, Michigan.

Community Rehabilitation and the Rehabilitation Medical Center at Lansing

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"THIS new rehabilitation business is for the birds!" commented a doctor recently. "It is unnecessary and a waste of money—just a bunch of do-gooders, not really serving a community need. You can't help these crippled folks. Either they are beyond aid or they must help themselves. Look at all the new fancy set-up at Sparrow Hospital. What is it all about?"

My mind fogged for the moment as I recalled patients, some of them his, who had benefited by our new "Rehabilitation Program." I thought of stroke patients, amputees, accidental paraplegics and the children we have followed through school years to adult employment who were spared the so-called "stigma of county aid" as they moved into the field of employment.

I was thinking of his words "the new fancy set-up" when I answered, "that physical plant is not new. We have been working towards it for ten years. Neither is the philosophy new, for it is but a re-orientation of our general medical minds going back to the days of the general practitioner when he, as one man, was able to handle all problems."

Philosophy

Society, in its specialties, has tried to split the complex individual into social, economic, medical, vocational and emotional entities and has found itself lacking. All that rehabilitation amounts to is the coordinated efforts of these various facets in pulling together their specific knowledge and thoughts for the benefit of the individual. A person is thought of as a "student" by educators; as a "client" by social workers, vocational counselors and lawyers; as an "employee" by employers, and as a "member" by unions. This is not the case.

Basically, the desires and needs of the handicapped are no different than yours or mine. It is merely the approach and the intensity of the various facets of the problem that differ. We cannot forget for one moment that his emotions, his human loves and desires are exactly the same as yours or mine. His basic needs of a home, love within that home, food for his body, of work or employment in order to satisfy these demands, his needs for religion, education and good general health, are the same as yours or mine. He is as eligible for life, liberty and the pursuit of happiness in all of its complexities as any of us.

Only by recognizing that the handicapped individual is not in all ways "handicapped" can this be appreciated. Perhaps it is "positive thinking" or the positive approach. Only by recognizing that this person is not strictly a social problem, not strictly a medical problem, not an employer's or a legal problem, but a complex organism involving all of these facets can an answer to the reestablishment of his home and social adjustment be found.

This seems to be the basic philosophy behind the development of the Rehabilitation Medical Center at Lansing and, having been closely connected with its initiation and growth, I welcome this opportunity to try to tell some of the "why" and "how" of this program for it does present a somewhat different approach to rehabilitation service—a community approach. Before going into the history and present situation, what were some of the factors initiating its development and present program?

Need

The following prime points were recognized:

1. An increasing number of dependent handicapped individuals surviving trauma.
2. An increasing incidence of dependent handicapped in the chronically ill and aging groups.
3. The legal-medical-employment complexities of the term "handicapped."
4. The lack of "follow through," in some cases, by the medical profession of a patient's care and interest to the completion of return to home and society in as independent a state as possible.

Program Differences

1. *Doctors.*—The idea was conceived and initiated by doctors, members of the Ingham County Medical Society. We recognized two points: (a) that the

earlier so-called "rehabilitation" methods are instituted, the better the results for the individual, the family and the community, and (b) that the key man is the doctor responsible for the acute illness, not the worker, consultant or specialist who may see the patient some time later.

2. *Ancillary Fields.*—The ideas and cooperation of men in other fields of humanity and therapy, including educators, physical and occupational therapists, nurses, social workers, psychologists, physical education, vocational counselors *et al*, were combined to develop this philosophy of a community approach to the problems of the handicapped. The medical and ancillary professions function in the organization as the *Professional Advisory Committee* (PAC).

3. *Community.*—Community interests came spontaneously as families saw some of their problems or possible problems reflected in the activities of the Rehabilitation Medical Center. Only with the backing of the community, aided by professionals and steered by doctors, has this program developed from the original 18 served in 1954 to the more than 1,100 in 1961.

The community expresses its views and functions as the *Advisory Council.* Recently the ten-year-old name has been changed from "Ingham County Rehabilitation Center" to "Rehabilitation Medical Center" by this Council. The Council elects the Board which has both lay and medical representation.

As one wanders around the new facility, he generally is not aware of the history and time spent in its development. Community organizations have cooperated and what is seen today as the Rehabilitation Medical Center is the net result of a guiding board and the cooperative efforts of community individuals and organizations such as United Fund, Division of Vocational Rehabilitation, Michigan Society for Crippled Children and Adults, Michigan State Health Department, United Cerebral Palsy, National Foundation, Medical Assistants Society and many others.

History

In 1951, there developed within the Ingham County Medical Society Geriatrics Committee the idea of a local rehabilitation program. This committee became convinced that within the medical group could be found individuals who could guide this program, bringing in as needed, therapy personnel to work with the individual patients. Thus developed the philosophy that such a rehabilitation program should develop within the community, initiated and guided by the doctors, growing and increasing facilities and services as the case load demanded, in a "grass roots" fashion.

We knew there were plenty of patients. It was primarily the matter of stimulating their interest and the community interest in the potentialities of assistance and developing facilities as they were needed. This in contrast to many other areas where the initial aim was to obtain the facility, the organization, the personnel and then find the patients!

The committee expanded and became a Professional Advisory Committee as it drew into its fold people with knowledge and interest in rehabilitation programming, from various departments of Michigan State University, including Psychology, Sociology, Social Work, Physical Education, Speech and Hearing. This also included community individuals and those from governmental organizations including Department of Vocational Rehabilitation and the State Health Department. Some time was spent by this group in discussing the philosophy, methods and type of program to be established.

Preliminary hospital contact introduced us to the Ingham County Hospital, Okemos, more commonly known as "The Old Folks Home." This institution was typical of most county hospitals being a rather nice brick building, located eight miles out in the country, housing some 120 county patients and staffed by limited personnel. These patients, as in most county institutions, represented all of the diseases falling under the chronic illness title. Many had been hospitalized for years. The cooperation of the Ingham County Board of Social Welfare and Board of Supervisors was excellent.

Pilot Program
(1952-1955)

Initially, the Professional Advisory Committee functioned not only in an advisory capacity, but also in a working capacity. With the cooperation of the part-time medical director of the hospital, a general practitioner, a survey was made and some ten of the 120 patients were selected as a pilot group.

This committee met every other Sunday for a full year, spending two to four hours discussing the problems of these patients, evaluating them and making recommendations as to how their status could be improved. Our staff consisted of one orderly, who was taught how to be a "physiotherapist" by a physical therapist on our committee from the Michigan Crippled Childrens Commission. At the end of this year, three of these individuals had gone home. All of

the others had shown progress, not so much from wheel chair to ambulation, as from bed to ambulation. They all needed much less nursing care than when the program was initiated.

As a result of this pilot program, the Ingham County Rehabilitation Center was formally organized, incorporated, a Board of Directors elected and an approach made to the county for funds. The county interest continued and our request was granted, allowing us to start with our first "paid staff." Because of the type of work and the patients we had, we initially hired two—a physical therapist and a psychologist.

Much of our early equipment was actually made in the hospital or was donated by those interested in the program. Much of the original efforts were strictly volunteer and the names of many have been lost in the haze of time, but their initial stimulation and results are carrying on.

At the end of three years of this program, we were given continued financial and moral backing by the Ingham County Board of Social Welfare and Board of Supervisors and by the community itself. The general trend had continued to be the same. More patients were being discharged from the County Hospital than ever before.

The attitude of the entire hospital had changed to the extent that more patients were becoming interested in life again and taking interest in the general activities of the program. They were continuing to be evaluated by the PAC and if acceptable were started on an individual program. Their program was periodically evaluated. When they reached a stalemate they were discharged, either to return to the hospital proper, as many did, or to go home, as has happened to an increasing number over the years. During these three years of the $75,000 which had been pledged to the use of the rehabilitation program, only $27,000 was used.

Years In Review

1955—Private patients first accepted for treatment at Rehabilitation Hospital. Patients served: 57.

1956—In March the doors opened on another phase of the rehabilitation project within the community, a vocational workshop program to become known as "Rehabilitation Industries." This, as a sheltered workshop, was designed to be of aid in retraining handicapped individuals and in some cases to be a place of permanent employment. Patients served: 96.

1957—The Curative Workshop merged with the Ingham County Rehabilitation Center. This organization had originally been incorporated in 1947 with outpatient physical and occupational therapy offered since 1951. Patients served: 287. Board changes and enlargements were necessary.

1958—It was becoming increasingly evident that this organization could not continue to grow and give the type of service our community was demanding in three scattered areas. Physical as well as organizational centralization seemed to be indicated. Edward W. Sparrow Hospital, a non-sectarian, non-endowed community hospital of some 250 beds, expressed an interest in the rehabilitation program and both organizations were reminded of the 1954 community study and its recommendations for the establishment of the chronic disease and rehabilitation unit at Sparrow Hospital.

This hospital was in the midst of a building expansion program. Contact was made in the spring of 1958 with the Office of Hospital Survey and Construction and in June of that year a statement of intent was signed by representatives of the respective boards of the Ingham County Rehabilitation Center and the Edward W. Sparrow Hospital to provide through joint cooperation necessary facilities for rehabilitation of the handicapped.

1959—This year brought other changes. The Lansing Better Hearing Society, an entirely separate organization, had been functioning for several years in the field of speech and hearing. It had been a struggling existence and it was the joint opinion of that organization and of the Ingham County Rehabilitation Center that a stronger program and one better serving the community would result by amalgamization of board personnel and the development of a Speech and Hearing Center under the Rehabilitation roof. In 1959, the Lansing Better Hearing Society dissolved to become a part of the Ingham County Rehabilitation Center. Board changes again were necessary.

At this time the growing interest of the Central Michigan Dental Society came to a head. For years interested dentists had told doctors working on this program that if we were ever interested in having a dental unit or the interested efforts of the dentists of our community to let them know. Their efforts, their programming and their time were thus incorporated in this new expanding rehabilitation center.

1960—November 1, 1960, marked the opening of the doors of the new facility to be known as the Rehabilitation Medical Center. Now, one year later, what is the situation, what are the results and what are the plans for the future?

Rehabilitation Industries

Rehabilitation Industries has been handling 20 to 30 individuals at a time on a work-training and employment basis. The work is primarily subcontract work obtained from local industry. The employees are paid a definite salary generally designed on a piece work basis thus increasing their take-home pay as their abilities increase. Approximately one-third of all of these employees have been returned to employment within our community and have thus become taxpayers instead of tax users.

However, as with all workshops of this type, it has not become self-sufficient. This is primarily because part of the aim has been "training" and by the time an individual is working efficiently enough to be "earning his keep" he returns to community employment.

A shop designed strictly for permanent employment of the handicapped can become self-sustaining as has been proven elsewhere, but one that is interested in training or retraining individuals and returning them to their community cannot and of necessity is dependent upon outside financial support. United Community Fund has been most helpful in this manner.

Rehabilitation Medical Center

The Rehabilitation Medical Center, the new facility, saw more than 1,100 patients, in-patients and out-patients, pass through its portals last year. The majority of the work has been in the field of physical therapy. However, in the course of the year, new departments have opened as the board felt they were prepared and the demand was present.

Services now available include physical therapy, occupational therapy, social service, vocational counseling, psychology, a limited amount of prevocational exploration, rehabilitation dental evaluation and programming and an active speech and hearing group. Through the cooperation of the Lansing Board of Education, educational facilities of the hospital have been increased for the handicapped and chronically ill children.

Current Situation

The present situation finds the Rehabilitation Medical Center located under the roof of a community hospital devoted to the care of acute conditions. This is a most unique feature! Two organizations with two separate boards function under the same roof and in an amiable manner. Such a rehabilitation program functions well in association with an interested community hospital. By this means there is closer liaison with all doctors and with all acutely ill patients. There is therefore better service given to all patients from the acute phase and their admission to the hospital to their final discharge if necessary through rehabilitation portals.

The Professional Advisory Committee continues to function. It is headed by the chairman of the Ingham County Medical Society's Medical Advisory Committee (MAC) as appointed annually by this society. It is enlarged to encompass other professional fields, as needed in the field of rehabilitation, by appointments made by the Board of the Rehabilitation Medical Center. This committee functions by meeting periodically to evaluate new patients and assist the responsible doctor in developing programs for this patient as well as assisting him in deciding when an end point is reached and if the patient should be discharged. Patients admitted to the hospital or the program remain patients of their referring physician, if it is his desire. The Professional Advisory Committee functions only on a consultation no-charge basis. The Orthopedic Staff of Edward W. Sparrow Hospital has cooperated in supervising the details of therapy programming.

Many of the original concepts, ideas and recommendations that have developed over recent years are culminated in this present program but active perfection is obviously yet to be gained. This will take more years than the one of our current new existence. The concept seems sound that a rehabilitation program can be developed as a community project by personnel available within such a community as Lansing where we are fortunate in having not only good medical personnel, but active ancillary personnel in such organizations as Michigan State University and state government. The needs for such a program seem to be justified by the increased number of personnel served in just one year of existence.

Summary

The history and the development of the rehabilitation program in Lansing known now as Rehabilitation Medical Center has been presented. The organization also has developed a vocational employment and training program for the handicapped known as "Rehabilitation Industries." The rehabilitation program not only serves patients, but aids in educating the community and the doctors regarding rehabilitation needs and services.

This is the story of the development of a total community rehabilitation program initiated and guided by doctors, aided by professionals, backed by the community and culminating in the establishment of a new facility in close association with a community hospital.

Rehabilitation Through Preventive Medicine

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THE FAMILY physician of today, although overworked and flooded by new laboratory and pharmaceutical discoveries, is still the central figure in rehabilitation of the chronically disabled person. However, as only the physician understands, he needs help and guidance for such a time-consuming process as total patient rehabilitation.

What, then, is rehabilitation? Simply, Doctor Frank Krusen in 1950 described it as ". . . the preparation of the patient physically, mentally, socially, and vocationally for the fullest possible life compatible with his abilities and disabilities." Dr. H. H. Kessler said, "It has come to be regarded as a creative process in which the remaining physical and mental capacities of the physically handicapped are utilized and developed to their highest efficiency."[1] Thus, we come to the concept of considering the total individual in treatment as the Committee on Rehabilitation of the AMA so clearly agreed: "Rehabilitation . . . includes every aspect of the treatment of the whole person. . . . [It is] a function of the individual's adaptation to six essential areas of living: psychological, vocational, family, social-recreational, educational, and community."[2]

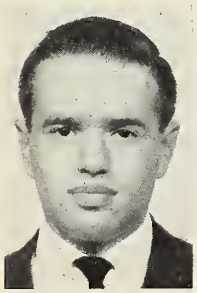
This tells us what rehabilitation is, but how can the busy family physician have the time to acquire knowledge of the various agencies able to participate in a total patient program as comprehensive as that suggested above? Perhaps, then, this can be solved only by cooperative effort between physician, health department, and voluntary agencies. This is a community public health problem as Winslow defined public health as ". . . the art and science of preventing disease, prolonging life and promoting physical and mental efficiency through organized community effort."[3]

Only a program of COOPERATION can produce patient rehabilitation:

C—Community effort for rehabilitation of its disabled population
O—Organization of community agencies
O—Orientation of physicians, agencies, and the community to the concept of rehabilitation
P—Persistence in following through the rehabilitation program by physician, agency, and patient
E—Emotional support for the patient by physician and social worker
R—Recreational facilities and opportunities for disabled persons
A—Adaptation of existing facilities and equipment to individual and group patient needs
T—Therapy by qualified physical, occupational, and speech therapists
I—Incentive for the patient and family to carry out his therapy program for self-improvement
O—Opportunity—financial, social, and physical for the patient to utilize the services of rehabilitation personnel
N—Nursing care—next to the family physician, the public health and rehabilitation nurse is the support and framework of the entire community program for rehabilitation of the disabled.

Then, how can public health medicine prevent disability? First, one must define prevention. Primary prevention, or preventing the occurrence of a disease is part of medical research into the etiology and pathogenesis of chronic disease not to exclude such factors as safety devices in accident prevention. Here, public health laboratories and hospitals, and other public agencies have made significant contribution along with other research facilities.[4,5] Patterns of rheumatic fever and acute glomerulonephritis are measured against streptococcal outbreak occurrence.

However, in chronic disease, the presenting problem to the practicing physician is secondary prevention. Here, again, public health research facilities are working with other research facilities. New diuretics and antihypertensives contribute to the longevity of many



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cardiacs. Anticoagulants have made life possible where only death and morbidity before existed. The Michigan State Health Laboratories are now engaged in fibrinolytic blood fraction production as another step to control thrombotic cardiovascular disease.

Here in the realm of secondary prevention, or the control of disease progression and relapse to prevent disability and early death, lies the most challenging problem of medicine today—that of rehabilitation of the disabled.[5] In the past few years the State and local health departments in Michigan have become quite active in the crusade to improve the care of the chronically ill. Through the voluntary agencies, USPHS, and State Health Department, numerous pamphlets on heart disease, hypertension, arthritis, diabetes, et cetera, have been made available to the lay public. The physician often finds these valuable aids for his patients at home. Of special interest are the physician-oriented pamphlets: "Strike Back at Stroke" and "Strike Back at Arthritis." These two instruction booklets provide an excellent guide for the physician to use in orienting patient and family to home care. Further, they serve as a guide to the public health nurse, whether health department or VNA located, in her home visits to the disabled patient.

Since 1957, the Michigan Department of Health and local health departments have become responsible for nursing home licensure. There are 15,474 nursing home beds in Michigan, all occupied by chronically ill or disabled persons, many of whom are confused, unwanted, and physically inactive. What better atmosphere than this rather poor substitute for a home is there for deterioration unless these homes are well run and regulated to preserve human dignity and strength. As Asher said in the British Medical Journal in 1947 on "The Dangers of Going to Bed"—"Behold the patient lying long in bed. What a piteous picture he presents! The blood clotting in his veins, the lime drawing from his bones, the scybala stacking up in his colon, the flesh rotting from his seat, the urine leaking from his distended bladder, and the spirit evaporating from his soul." With this in mind, what better pathway to restoration toward normalcy than ". . . intelligent use of activity to maintain the abilities of the normal systems of the body, together with adequate protection of the involved parts of the body. . . ."[6]

The Michigan Department of Health has anticipated this unmet need in our aged, dependent population and thus along with other agencies provides trained personnel for consultation with private practitioner, local public health nurses, and nursing home personnel. These persons are of high caliber and well trained to teach and demonstrate to local persons concerned with direct patient care and rehabilitation of the disabled. Thirteen public health nursing consultants, eight of whom have had training in rehabilitation nursing, are available as well as three well-trained physical therapy consultants, an occupational therapy consultant, two medical social work consultants, and six nutrition consultants. Realizing that this small group of personnel cannot even begin to destroy the casket of deterioration of the chronically ill, training programs for local public health nurses and nursing home personnel have been established. In March, 1961, a ninety-hour training program for nursing home aides was initiated, both those presently employed in nursing homes and those seeking such employment. During these three weeks the student aides are guided and instructed by registered nurses who are well qualified in teaching basic nursing and bedside care techniques. These, of course, are basic fundamentals of rehabilitation. On-the-job training under RN or LPN supervision is also an integral part of this course which is offered at: Masonic Home, Alma; American Legion Hospital, Battle Creek; McGregor Center, Detroit; and Jewish Home for the Aged, Detroit. As of February 20, 1962, 62 aides have completed this course, four more classes were nearing completion and there were many applicants on waiting lists. All of these four centers have the advantage of occupational and physical therapy consultation for their students.[7]

The Michigan Department of Health does not limit its rehabilitation instruction to formal teaching, but also continues its programs in on-the-job training by our rehabilitation nursing consultant. Many of these semi-formal classes in basic rehabilitation and nursing techniques have been held in areas such as Jackson, Mt. Clemens, and Allegan. In addition, every visit to a nursing home by a public health nursing consultant results in increased knowledge and instruction for the personnel involved. Two one-day institutes for nursing home administrators have resulted in increased awareness of and enthusiasm for the concept of rehabilitation.

Again, the health department has not neglected Michigan's more highly-trained people in this educational assault on chronic illness. In March, 1962, one week courses in rehabilitation techniques were established at the Rehabilitation Institute in Detroit for RN's and LPN's in nursing homes. Partial subsidy for this course is available as well as for a more ex-

tensive course in rehabilitation nursing offered for a period of four weeks at the same institution for state and local public health nurses. A course at Minnesota (Kenny Institute) where the value of rehabilitation nursing care has been proven in a controlled study[8] may be substituted if desired. The immediate goal is to get at least one nurse in each local health department oriented to rehabilitation techniques.

To further this concept of rehabilitation nursing in caring for the chronically ill, the Michigan Department of Health, in cooperation with local health departments, visiting nurse associations, and Michigan Blue Cross, has promoted the idea of patient care in the home to both decrease the length of hospital stay and to lessen the possibility of deterioration of human beings, helpless and bedridden by crippling illness. At the present Blue Cross actively participates in the Detroit VNA project.[9] Eight other bedside nursing projects have been established by the Michigan Department of Health, and twelve more are proposed or being initiated at this time. No other project involves more cooperation between family physician and public health nurse. Doctor and nurse as a team are able to plan a well-rounded program for the patient and family to minimize and improve the patient's incapacitating situation. To aid in rounding out this program for the homebound, the medical social worker, physical therapist, occupational therapist, and nutritionist are able to provide specialty consultation.

At present, approximately 100 patients are being served by bedside nursing projects, and with the additional physical and occupational therapy consultation available, the doctor-nurse team will be better able to serve even more patients in the familiar environmental surroundings of the home. "Rehabilitation in the home builds on the family's cooperation and relates the patient's treatment to the specific activities he used to perform and to the stimuli these offer for his participation in the rehabilitation process. Treated at home, the patient maintains his place in the family constellation. . . ."[10] Numerous projects similar to Michigan's bedside nursing program have successfully been carried out in other communities.[10,11]

Attempts have also been made at a more detailed evaluation and program plans for selected patients in nursing homes, hospitals, and private homes. The function of these programs has been to demonstrate the effects of cooperative efforts in rehabilitation to physicians, nurses, and other paramedical personnel. Some of these programs have been directed specifically toward "stroke" victims. One of the most successful of these has been the cooperative effort of the Pennsylvania Department of Health, Heart Association of Southeastern Pennsylvania, and the Heart Disease Control Program of the U. S. Public Health Service. Patients were selected and evaluated by a team of physician, physical therapist, occupational therapist, dentist, speech therapist, and nutritionist. Nursing services, and social casework services from the Delaware County Family Service were also utilized. Results were encouraging with twenty-one of thirty-two patients gaining complete independence in activities of daily living, six returning to full-time employment or housekeeping, and six to part-time work. It should be kept in mind that twenty-four of these patients were bedfast at the time of referral.[12]

Here, in Michigan, the team demonstration approach to the problem of rehabilitation in selected cases was begun in the spring of 1961. This program is more comprehensive than those in other states as it encompasses the total field of physical disability rather than limiting the program to "stroke" victims. A demonstration-consultation purpose is the basis of this plan to encourage every sizeable community in Michigan to organize a cooperative physician-directed rehabilitation program of its own. The program is conducted on a referral clinic basis with a team of physician, physical therapist, public health rehabilitation nurse, and medical social worker screening and evaluating the patients who are referred by their family physicians. The majority of the patients came from private homes, although many have also been referred from nursing homes and hospitals. The patients, having been selected and evaluated by the above team, are then thoroughly evaluated by a consulting physiatrist, who together with the team then prepares a written consultation with specific recommendations for the private physician. Consultation in occupational therapy and nutrition are also available to the referring physician. Each clinic is sponsored jointly by the state and local health departments with cooperation of the local medical society. Also the State Division of Vocational Rehabilitation, Department of Social Welfare, Bureau of Social Aid and voluntary agencies such as Family Service and Easter Seal Society have actively participated in helping the family physician to carry out the recommendations.

The program is quite recent and therefore no statistical results as to its success are available. However, the intangible results of increased community awareness and utilization of available resources have already been demonstrated. Clinics have been held

TABLE I. PHYSICAL RESTORATION POTENTIAL

No indication for rehabilitation services	20
Could be helped slightly in self-care or mobility	63
Could be helped moderately in self-care or mobility	63
Could be helped appreciably in self-care or mobility	35
No potential reported (unable to evaluate without further medical reports)	3
Total	184

TABLE II. PSYCHO-SOCIAL RESTORATION POTENTIAL

No indication for rehabilitation casework services	15
Could be helped slightly in psycho-social adjustment	39
Could be helped moderately in psycho-social adjustment	24
Could be helped appreciably in psycho-social adjustment	3
Not indicated	5
Total	86

(First 98 patients not rated as to psycho-social restoration potential)

in Albion, Allegan County, Barry County, Bay County, Genesee County, Copper County, Jackson City, Macomb County, Monroe County, Saginaw City, and Saginaw County. A total of 184 patients have been selected and evaluated by a physiatrist (through February, 1962). Of these, approximately 40 per cent have been cerebrovascular accident victims with also an appreciable number of patients with arthritis, amputations, traumatic central nervous system injuries, complicated fractures, and multiple sclerosis. The majority of patients were in the 41 to 60 age range where life expectancy is good and the importance of training them to care for themselves, even if they are not able to work full-time is advantageous from psychological, social, and economic aspects. Numerous individual examples of remarkable transformation have occurred. A severely limited, dependent arthritic woman in Jackson, through a program of maintenance exercise, is now completely independent in daily living and an active member of the Senior Citizen's group. An arthritic woman in Allegan who was confined to her trailer is now able to go shopping. Arrangements for speech evaluation and vocational rehabilitation for a young auto accident victim in Bay County are being made. Referrals to local rehabilitation centers such as Saginaw County Hospital have provided team rehabilitation on a smaller scale for numerous residents of Saginaw County including several patients seen in these Rehabilitation Evaluation Clinics.[13]

The physiatrists together with the rehabilitation team have projected some well-considered anticipated goals for the 184 patients evaluated. Eighty-one patients should be able to return to independent living and sixty-nine will need some supervision, while only eleven would require continued nursing care. A goal could not be projected for twenty-three of the patients because of further diagnostic work-up needed. Physical and psycho-social restoration potentials were also projected (Tables I and II).

Thus, Michigan is attempting to rehabilitate its disabled through the cooperative efforts of physicians, the health departments and other public agencies. With the goal of public awakening to the needs of the disabled, the educational and orientation aspects of the above programs become vital to the future of chronic disease control. As Dr. Simon Baruch, father of Bernard Baruch, stated in the 1895 Montifiore Hospital of New York staff report, "It will be a proud achievement when our records will tell that a goodly proportion of those who have entered our gates, only to die in peace, have again issued from them entirely or partially restored, and enabled again to enter upon the battle of life from which they had regarded themselves as permanently banished. . . ."[14]

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The University Looks at Rehabilitation

An International Perspective

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THE PRESENT article will review the international aspects of rehabilitation within the framework of a university. The article will deal primarily with vocational rehabilitation but is not necessarily restricted to this area. It can also be interpreted as including the entire area of rehabilitation which includes medical, vocational, social and educational.

The purpose of the university in world affairs can be best perceived in relationship to other purposes. The following sections examine the purposes of the university in international rehabilitation, the purposes of the United States Government in rehabilitation, the purposes of rehabilitation from an international perspective and the purposes of Michigan State University international education and in international rehabilitation in particular.

Parade of Purposes

Purposes of the University.—The purposes of the university in world affairs has been defined in a document entitled "The University and World Affairs."[1] A group of prominent American educators, political scientists and related social scientists, under the sponsorship of the Ford Foundation examined in detail the relationship of the university to various aspects of government and international involvement. The following excerpts define, at least their view, the purposes of the university in world affairs.

"The American university is caught in a rush of events that shakes its traditions of scholarship and tests its ability to adapt and grow. The United States is just awakening to the fact that world affairs are not the concern of the diplomat and soldier alone. They involve the business man, the farmer, the laborer, the economist, the lawyer—indeed every citizen. And we are discovering that the world includes vast regions and peoples we have little known before. . . . At the center of these new educational demands, all the more pressing because they often coincide with the policy goals of our government, stands the American university. . . . The American university is a center both of learning and of service with a public purpose founded upon the traditions of American society and the heritage of other universities and history."

"To help American universities and colleges achieve their unique purposes our educational resources must be strengthened. In a pluralistic society like ours this effort requires a new set of cooperative relationships between universities and colleges and the institutions that call upon and support them—the federal government, the states, the foundations, and private enterprise."

"The system of land grant colleges, established a century ago in the United States is a notable example of adaptation of American institutions of higher learning to meet heavy new demands. But with time, the new task was to provide higher education to the workers and farmers on a developing frontier. At the present time, our universities are called upon to bring knowledge of other people into the main stream of higher education for Americans, and to help educate the leaders and help strengthen the educational institutions of newly developing nations. For American universities, this is a further step in the continuing task of expanding the horizons of a free society."

In view of the above kinds of responsibility facing the American university, the Morrill report listed the following measures which American universities and colleges must undertake if they are to meet their expanding role in world affairs and to prepare the American people for their consequent role, both at home and abroad.

1. "All American institutions of higher learning should make studies of world affairs an important and permanent dimension of their undergraduate program.
2. All American universities should improve the competence of their graduate and professional schools to teach and conduct research on international aspects of their disciplines and professions.
3. More universities (more than at present) should become diversified centers of strength to train specialists in world affairs for careers in teaching and other professions, government and business; to undertake research; to exercise leadership in language-training and linguistics; to prepare teaching material

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for all levels of education; and to open the perspectives of scholarship to other institutions and to adult citizens in their communities. Some centers will focus on particular geographic areas, others on policy problems and functional studies, cutting across disciplinary lines.

4. Most universities and colleges have students and scholars from other countries. These institutions need to develop special educational programs fitting the needs of their foreign guests. Many universities and colleges would benefit from undertaking cooperative activities with educational institutions in other countries. A few should undertake programs of assistance to educational institutions overseas.

5. Universities that undertake a wide range of programs in world affairs, at home and abroad, face complex problems of management. Their facilities and administration alike need to develop long-range priority and plans in order to make the most effective use of their scarce resources and to make possible the balanced, yet flexible, growth of the total university educational program."[1]

The responsibility of the university or college has usually been defined as: teaching, research and service. The service aspect has been particularly emphasized in land-grant types of universities. The above discussion of the involvement of the university in world affairs lends itself to inclusion within the commonly understood purposes of the university. The university, if it is to meet the needs of the American people, must involve itself in that kind of teaching program which will educate the American student in the international aspects of his specialty; the university must conduct that kind of research, whether at home or abroad, that will keep itself abreast of the common and pressing international problems; the university must serve in those kinds of consultant relationships to foreign institutions and/or governments which will enable its students and faculties to be aware of international needs and problems. This consultant activity, while providing a service, is one of the primary means by which the faculty of a university demonstrates its competency in world affairs, and at the same time becomes increasingly knowledgeable about specific world affairs or specific areas of the world.

National Purposes

The purposes of the United States Government in international activities has been defined by Edward R. Murrow, Director of the United States Information Agency. His summary, written for another purpose, defines the basic purpose of the U. S. Government abroad as to "make our policy everywhere intelligible and, wherever possible palatable. Its purpose also is to associate our people and their daily lives, their progress, and their yearnings with the legitimate aspirations of all people everywhere."[3]

He further states, "Our history as a nation, originating as it did in a war for independence, has great appeal for people everywhere, but especially for people in the newly independent nations of Asia and Africa. Although the people in these nations are not as yet well informed about our life and culture, they display a lively interest in the United States."[3] Mr. Murrow states that the chief purposes of the United States Information Agency is that of constructing throughout the world a solid understanding and appreciation of what America really stands for. In performing this task, we are not trying to sell the specific American way of life. He goes on to say that the peoples of the world do not desire to merely copy the American way of life but they do desire to develop their own way of life in accordance with their own needs and culture. In order for them to build their own democratic way of life, our constitution and our total way of life may be useful as a model. This model can become available to them only as the American way of life is pictured in every aspect. The rehabilitation and education of the disabled uniquely illustrates the American concern for all people.

Purpose of Rehabilitation

The international purposes of rehabilitation can be seen clearly in the words of Donald Wilson, Secretary General of the International Society for the Rehabilitation of the Disabled, in his foreward to the proceedings of the Eighth World Congress of the International Society which was held in New York in August-September, 1960. The following section from the foreward illustrates both the content and feeling of the place of rehabilitation on the international scene:

"Those active in the rehabilitation field have an opportunity to relate their interest in services for the handicapped to the total effort of bringing about better understanding among the world's citizens. Such understanding is one essential to the achievement of world peace. By participating in the international rehabilitation programs of voluntary and governmental organizations, an individual will find his own life more meaningful."[2]

"The growing importance of rehabilitation services throughout the world is indicated by the large attendance

at these meetings and the increasing number of countries and professional disciplines represented. The Seventh World Congress in London was attended by approximately 1,200 persons from 53 countries; in New York approximately 3,000 persons attended from 70 countries. Another indication of increasing interest in these programs is that during this same period, from 1957 to 1960, the number of member organizations of the International Society increased from 34 countries to 51 countries. Those participating in world congresses and in other activities of the International Society include: doctors, nurses, social workers, physical and occupational therapists, special education personnel, hospital and work-shop administrators, employment counselors, brace and limb makers, prosthetics technicians, public health officials, and the disabled themselves."[2]

Purposes of Michigan State University

Michigan State University, if it is to meet the role of the university defined above, must "internationalize" itself. As a community of scholars, the university asserts that it must be abreast of the current pressing international problems, whether these are in the social, political, or physical sciences. The university has, through its College of Education, been engaged in the training of personnel for rehabilitation and special education for a number of years. The university has also been a participating member in the vocational rehabilitation training program, sponsored under Public Law 85-565 since 1954. It has become increasingly apparent that if the university is to continue to fulfill its role in teaching, research and service in the area of rehabilitation, it must also relate itself to the international needs, problems, and opportunities in this area.

International Rehabilitation at Michigan State University

Michigan State University, through its College of Education, is presently in the process of defining its specific purposes and role in international rehabilitation. It is paramount that professors of rehabilitation and special education be knowledgeable in the international aspects of their specialty so as to extend their colleagueship on a world basis. As hunger and acute disease are reduced, it remains to the professional person in special education and rehabilitation to provide the educational and rehabilitative techniques that will enable the individual to live with dignity as a self-supporting individual.

In the summer of 1961, the Cultural Affairs Division of the Department of State awarded to Michigan State University a contract to enable it to conduct a pilot program in the area of international rehabilitation and special education. This contract has enabled the university to start a very limited program with the University of San Carlos in Guatemala, Central America. The purposes of the project in Guatemala are defined as follows:

1. To provide a center for students and university staff from the United States and the cooperating foreign nation to research significant problems in rehabilitation and special education.
2. To conduct the kinds of research and demonstration projects that will exemplify or foster good educational practices and rehabilitation procedures.
3. To create a vehicle that will enable professional people of different nationalities to work together on common professional problems.
4. To foster a climate for cooperation between Michigan State University and other national universities on common research interests.
5. To promote study and program cooperation in the cross-cultural implications of rehabilitation and special education.

The contract has enabled Michigan State University to release one professor for three months for research and consultation activities in Guatemala and the surrounding Central American nations. It has further enabled two Michigan State University doctoral candidates in rehabilitation counseling to go to Guatemala for two years to conduct the research for their degree and to serve as consultants in rehabilitation and special education to the various agencies in Guatemala. At the same time, it has enabled three students from Guatemala to come to Michigan State University for advanced degrees in rehabilitation and related fields.

The Congress of the United States demonstrated its concern for international programs in rehabilitation and special education in Public Law 96-610 entitled: The International Health Research Act. The purposes of this act are stated in Section II. These are:

(1) To advance the status of the health sciences in the United States and thereby the health of the American people through cooperative endeavors with other countries in health research and research training; (2) To advance the international status of the health sciences through cooperative enterprises in health research, research planning and research training.

In sections II and III, the Surgeon General, the Secretary of Health, Education and Welfare and the Office of the President are authorized, among other things:

(1) To establish and maintain fellowship in the United States, and in participating foreign countries; (2) To make grants to public institutions or agencies and to non-private institutions or agencies in the United States, and participating foreign countries for the purpose of establishing and maintaining fellowships.

Rehabilitation counseling and special education are fully defined within the body of Public Law 96-610. The objectives of the present limited program between the University of San Carlos and Michigan State University are to ascertain the possibility of developing a "joint international center" where both institutions may achieve their teaching and research purposes in the international aspects of rehabilitation and special education. The center will not necessarily restrict itself to rehabilitation and special education but conceivably will include other areas of education as the two universities so desire.

In summary, the role of the University in International Rehabilitation is to conduct those teaching, research and service activities which permit it to fulfill its defined functions. Michigan State University is insistent upon fulfilling and accepting its international responsibilities in all areas where the university will increase its ability to serve the people of Michigan, and its capacity to educate its undergraduate and advanced graduate students for more effective service in their specialty as well as on the international scene.

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Crime Cycle

Menstrual factors and crime have been linked in a study by Katharina Dalton, M.D., of London.

"An investigation carried out in a women's prison revealed that almost half the women committed their crime during menstruation or the premenstruum. Premenstrual tension appears to be an important factor," she said, "and 63 per cent of the sufferers committed their crime at the time of their symptoms."

Previously, Dr. Dalton has reported that during menstruation a deterioration occurs both in a schoolgirl's work and in her behavior, and it is also at this time that women are more liable to be involved in accidents or to be admitted to a hospital with an acute psychiatric illness.

The investigator explained that this "gradual recognition of the social significance of menstruation in the various aspects of a woman's life . . . " led to the study of the possible importance of the menstrual factor in crime.

Over a period of six months in a women's prison, Dr. Dalton interviewed all newly convicted women (386) below the age of 55. Nearly half of all crimes (49 per cent) were committed by women during menstruation or during the premenstrual period. It also was noted that childless women were most likely to commit their offences during the premenstrual period and women with children during menstruation. —*British Medical Journal*, 2:1752 (Dec. 30) 1961.

The Medicine Chest

Robert P. Holdsworth
East Dennis, Massachusetts

THE SMALL BOX was quite unrecognizable under its fluffy grey coat of attic dust, but when this film was brushed away, it glowed with all the dark, warm waxy luster of its tropical wood. Then I knew that I had discovered a treasure. It was, indeed, the old and long lost family medicine chest, the one that had served so well on the sailing-ship voyage to America and for many years afterward in the primitive backwoods of pioneer Michigan.

Without doubt, it was the very same medicine chest carried by Grandpa on that bone-chilling October night in 1859, when he "saved the life" of Colonel Bowers. "Saved" is put within quotation marks because that was the positively expressed belief of the Bowers family, although in Grandpa's opinion, and he was a modest man, Nature had a good deal to do with Colonel Bowers' recovery.

The chest was similar in dimensions, except for its greater depth, to the shoe boxes one sees today on dealer's shelves. Every joint of its heavy, dense wood was as perfect as when it left the cabinet maker's hands more than 100 years ago. On its cover was a clever flat brass handle, set flush with the surface and there was a brass lock, which fortunately was not functioning, for there was no key.

The polished exterior of this beautifully made little gem of the woodworker's art immediately stirred the imagination, but it was the compartmented interior with its nest of bottles and its dry, faintly aromatic odor of the past that caused latent curiosity to leap into action. What had been the medicines carried by the family on its adventurous journey from London? What was their nature? What illnesses were they designed to cure or relieve? Possibly the contents of the small chest held clues to the answers.

When the lid was lifted, an inside spring could be pressed, allowing the front panel of the box to fall forward, revealing a partial row of bottles, each in its own stall lined with faded velvet. Three of the eight first-line stalls were empty. At either end of the chest stood two larger bottles, squarish like the others and, like them, each with a hammer-headed ground glass stopper. If complete, the entire complement would have been twelve. The original London chemist's labels still adhered to a number of the bottles, some of which contained the remains of the century-old family pharmaceuticals. To learn the nature of the medicines taken by my father and my aunts and uncles and their pioneer neighbors of the backwoods, I turned for enlightenment to the learned Mr. Noah Webster.

Bottle number one was half filled with a light brown powder designated as "Turkey Rhubarb," which was described by Webster as a purgative and stomach bitter. He also took the pains to say that while it had ordinarily been obtained in Turkey it was actually a product of China. The Jalap Powder in bottle number two was also a purgative said to be of some potency; Ipecac, the very name of which has a snappish, threatening sound, was said to have the qualities of an expectorant and an emetic; Myrrh, of which a quantity remained in its flask, held for me some vague Biblical connotation, but Mr. Webster bluntly described it as being of value for local application and as a stimulating tonic; the next little flask had held Sweet Spirits of Nitre, the gentle, even poetic name of which treacherously concealed its uses as

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Author's Notes: The medicine chest described in this article belonged to my grandfather, William Holdsworth, who emigrated from London, England, to the Grand Traverse region of Michigan in 1858. After a journey by sailing ship, *Charlotte A. Stamler*, beginning at Liverpool on August 26, 1858, and continuing from Quebec to Collingwood, Ontario, and from there by a small "propeller" called the *Hunter* to Northport, and finally by open boat to the Peninsula, Grandpa with his wife and seven children reached their destination on October 12, 1858. I think that this was on a Saturday and on the following Monday he walked along the Indian trail to Traverse City and there declared his intention of becoming an American citizen, an action that in all the rest of his long life he never regretted.

Captain Fred Johnson was a familiar figure to me in my early youth as he drove along the dusty road toward Neahtawanta from Traverse. A ride in his carriage behind his two spanking horses was an event always to be anticipated. He and my grandfather always remained firm friends.

My grandfather died at Traverse City in January, 1907, in his 91st year.

a diaphoretic, a diuretic and antispasmodic; the Nitric Acid bottle was empty and the pharmaceutical applications of this fiery liquid to the treatment of family ills must remain something of a mystery. However, I do know that the painful irritation of canker sores was relieved by touching them with the end of a toothpick which had been dipped in Nitric Acid. This knowledge had been passed along to my father by his father, and so may have had its origin in the medicine chest. One unlabelled container still held a few drops of a clear, oily liquid and another, devoid of its original fluid contents, had an inside coating of sparkling white crystals. These, one suspects may have been camphor crystals, but the stopper refused to yield and the suspicion could not be confirmed.

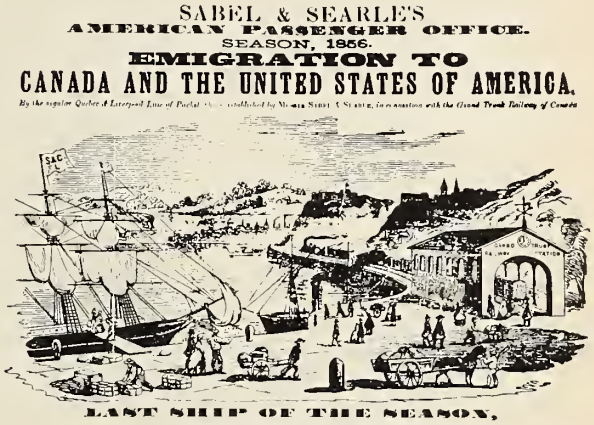
Such were the contents of the bottles still remaining in their dingy velvet stalls, and a particularly vigorous, rugged and capable lot of medicines they seemed to be.

One would like to think that the three flasks which were missing had contained either something pleasant to taste or pleasant to smell, for it would seem only fair and just that patients being dosed from this portable pharmacy were entitled to an occasional decent break of some sort.

A small tray with five neat compartments rested in the top center of the chest. Its original contents save for three items were gone. There still remained a bit of beeswax, a tiny and very rusty pair of scissors and a keen little sharp pointed knife, the bright blade of which was enclosed in a folding pair of tortoise shell handles. Perhaps it would be a reasonable inference that when the chest was new, this tray had held a thermometer together with probes, scalpels, needles, sutures—all the equipment for treating cuts and other injuries crying for repair. Indeed, this may have been the "Surgical Section" of the old medical kit.

Under this tray was another with its original contents intact—a nicely molded glass mortar with its pestle, a pair of small glass jars with metal tops and two bottles of doll's house size. One of the jars was about half filled with Dover's Powder which Mr. Webster defines as a "powder of Ipecac and Opium, an anodyne diaphoretic." The other contained Grey Powder, "a moist powder consisting of finely divided chalk and mercury, used as a mild cathartic for children."

The two Tom Thumb bottles, each about an inch and a half tall, held, respectively Calomel and Emetic Tartar, which indicates that despite their diminutive stature, these little containers were packed with the power of medical dynamite. In effect, the austere Mr. Webster raises his hand in warning that great care should be used in their administration. Calomel, he says, is "a mercurial, a purgative and an anthelmintic." By this last, he means a vermifuge. The Emetic Tartar he describes as a "poisonous white crystalline salt



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The splendid ship WINDSOR FOREST, despatched by Messrs SABEL & SEARLE on the 6th June, has attracted out and the passengers have promised the Co. four such ... the following extract ...

From the Quebec "Morning Chronicle" Wednesday, July 16, 1856.

The Passengers by the "WINDSOR FOREST," beg to call their last thankful Exploration ... T. DAVIS, not only for his polite attention to which he has conducted the good ship from Liverpool to Quebec, but also for the most ... of ... that have distinguished his command. To many of the above it is the first ... voyage of their lives, and he will be much remembered by them as that ... will ... the ... and difficulty which have marked the boating of the Captain the Chief Mate, (Mr. T. Davis) and the other officers ... Their ... and happy ... have ... and ... to the lovely ... of ... Virgin Bridal Servants.

Signed — DANIEL R. ROPE — ALFRED T. WARDLEN, on behalf of the others.

The Ships of this Line will be expressly constructed for Postal and Steerage Passengers, No. 1, ... carrying Cabin Passengers only, with a certain Number of Second Class Passengers, First Class Cabins ... with Second Class Passengers will be supplied with a good Cook, ... Second Class Passengers will be supplied with a good Steward, and ... Cook, and ... Steerage Passengers will find ... and be ... with ... and ... Passengers ... to ... Ships ... to ... Steerage ... to ... Ships ... to ... Steerage ... to ... Ships ... to ... Steerage

having a sweetish, metallic taste—used as a diaphoretic, expectorant, emetic and counter-irritant."

There was still another compartment, a sort of subcellar, in this compact case of medicines. It lay under the one just described and was the repository for the more bulky "dry powders." On the evidence of a spoonful or two of white crystals lying loosely scattered on the bottom, it seemed likely that the "dry powder" may have been Epsom Salts or the 1858 version of that bitterly efficient stuff.

This medicine chest had been a gift to my grandfather by friends in London just before he and his wife and seven children embarked at Liverpool aboard the ship *Charlotte A. Stamler,* bound for Quebec. No more practical present could have been given to a family whose ultimate destination was a home hewed from the virgin forest in the raw new world of Michigan.

One of my aunts who retained some pungently vivid memories of this small chest of medicines, wrote that a book of instructions had been provided as a guide to its use and that her father, being a careful student of its directions, had developed a considerable ability to diagnose and treat the family ailments. He began his "practice" on the *Stamler* which was violently storm tossed for more than two weeks of a six weeks' passage. The all-important manual of instruction is now unfortunately missing so that the system of diagnosis and recommended medication can only be a matter of conjecture. One wonders whether the book contained some kind of key, similar perhaps to ones found in books on Botany, where the searcher goes down a sort of zig-zag ladder of descriptive characteristics, checking one against the other, selecting the likeliest and going on until he comes to what seems to be the best description and the final answer. At any rate, we know that Grandpa was called upon almost at once to treat seasickness, the symptoms of which call for no special diagnosis. A fair guess for another early demand on the medicine chest would be indigestion, at least if one is to judge by the list of foods "prepared by a qualified cook appointed especially for the steerage and second class passengers" as described in the *Stamler's* "broadside." The unvarying daily fare, once the meager supply of fresh provisions was exhausted, was recorded by a family member as "dry pea soup, hardtack, boiled salt pork and potatoes."

That there must have been a considerable attrition in the family medical supplies during the long sea voyage is evidenced by a note in Grandpa's journal, "In Toronto we stopped at a Chemists and got the medicine chest filled up." This was characteristic of Grandpa who always prepared for eventualities.

"When necessary," said one of my aunts, "We children were given liberal doses of rhubarb, jalap, magnesia, calomel or quinine. And, mind you, they were administered bare handed, so to speak, not camouflaged with flavoring or hidden in capsules. We took them, stark and mordant, right out of the spoon with all their bitterness exposed. Father, possessing the only box of medicines in our neck of the woods, was often consulted by other homesteaders in our region."

In his old age, Grandpa wrote the story of his long and busy life in which he mentioned the medicine chest with what seems to be a kind of nostalgic respect and gratitude, but he records only one of the neighborly visits in his capacity as amateur physician. That venture was his nocturnal journey by row boat to the bedside of Colonel Bowers.

It was on the night of October 10, 1859, a date lacking just two days of being one full year since the family stepped ashore from an open boat on the forested peninsula that separates the two long arms of Grand Traverse Bay. It was clear but intensely cold, and after a day of laborious pioneer toil at felling trees and burning slash, the family was enjoying a candle-lit evening in the warm comfort of its living room, the rough-boarded walls of which were decorated with pages of *The Illustrated London News.*

Neighbors then lived widely separated by stretches of primeval forest, and visitors at any time were a rarity; at night, they were unheard of, so that the thump of footsteps coming toward the house from the bayshore at once put the family on the *qui vive.* The sounds were made by boots and not by moccasined feet. The approaching night visitor was a white man and not an Indian. He proved to be Captain Fred Johnson, a young master of Great Lakes vessels who lived, when ashore, just beyond Bowers' Harbor, seven or eight miles northward on the peninsula.

He stated his errand in a few words. Colonel Bowers was a very sick man and desperately in need of medical help. It had been learned that Grandpa possessed a supply of medicines. Would he come and see what he could do for the Colonel?

"Yes, I will", Grandpa replied without hesitation. "But you must understand, that I am no physician. I will do what I can, though, and gladly. What ails the Colonel?"

Captain Fred glanced apprehensively at my grandmother, who after greeting him had at once begun

preparing tea, and at my three young aunts. Then conquering his delicacy, he said, "He is suffering from a severe stoppage of the bowels".

Grandpa nodded in understanding. Already against the penetrating cold of the starlit northern night, he was getting into his heavy outdoor garments. Not a large man—Captain Fred stood head and shoulders above him—Grandpa never gave the impression of being small. His hair and full beard were reddish; his eyes were sharply blue and his nose was positive, like Disraeli's. He walked with a decided limp, due to an accident of some years before, but never then, nor in all his long and busy life did he make the injury an excuse for not carrying his full share of any burden.

Captain Fred had come by row boat, one of the sturdy Mackinac build. Travel by the water route was much more sensible for a night journey than following the tortuous Indian trail along the bay shore. With the Captain pulling the oars and Grandpa steering, the precious medicine chest between his feet, the boat was headed out past Hopkins' Point and toward the Island, not Marion Island but the small island that floats under its lea. There on the shore, they found the embers of a fire left by Government surveyors. Feeding it with driftwood, they warmed themselves and rested for a short time.



The Medicine Chest carried by William Holdsworth on the sailing ship *Charlotte A. Stamler* on the voyage from Liverpool to Quebec. Sailing on August 26, 1858, and arriving on the Peninsula that divides Grand Traverse Bay on October 12. This medicine chest was used not only in treating his own family of wife and seven children, but also those neighbors in his neighborhood who requested his assistance. William Holdsworth was not a physician nor did he pretend to be one.

As they rowed on toward the harbor, the giant pines on the near shore seemed, in the translucent moonlit night, to be balanced on a sheet of glass. No slightest ripple broke the surface of the bay save the whirlpool of the oars and the sharp prow of the boat as strong arms drove it forward. The stillness of the night was accented by the creak of oars in thole pins, the purling of the parted waters and the muffled "huff" of the oarsman's breath as his body swung to and fro in powerful rhythm.

Midnight must have been close at hand when they entered Colonel Bowers' candle-lighted living room. In his account of the visitation, Grandpa does not mention the hour, but he does say that he found the Colonel to be a sick and a very apprehensive man.

For a week or so, it seemed, he had been treated by a certain Dr. Shetterly who had given him herbal decoctions internally and a series of applications externally, without success. (Dr. Shetterly comes into this account as a name only. Who he was, where he came from and where he went, is not of record.)

After ascertaining in detail as much as he could of the Colonel's condition, Grandpa opened the medicine chest, the front panel dropped down, the trays were lifted out and Grandpa went to work, mixing as he says, some "active mineral powders." Whether he did this by a formula from the manual or whether he composed offhand, his account does not say. It is safe to assume, however, that the bulk of his mixture came from the "dry powder" compartment, although as we know the catalogue of his available medicines included several purgatives which may have participated. Unfortunately, Grandpa merely said "dry powders" and left the actual contents of his mixture to conjecture.

It is to be hoped that the apprehensive Colonel Bowers gained some measure of confidence from the trim, professional appearance of the medicine chest with its neat trays and row of labelled bottles, even though its medication was being administered by a most unprofessional appearing amateur. At any rate, he hopefully gulped down the generous potion which Grandpa had prepared.

There was a long and anxious wait by all concerned. Then, as the first rays of the sun were touching the surface of the bay and gilding the distant headlands, the mixture of "active mineral powders" brought the desired results and a fair new day dawned for Colonel Bowers.

"His people were much pleased and gave me credit for saving the Colonel's life," wrote Grandpa, "But Nature helped."

He concluded his brief written account of his visitation with this curtly prosaic statement, "I left some of the powders and we returned home during the morning by the way we had come." Somehow, this transplanted Londoner made this strange night errand of mercy seem very matter of fact and everyday.

This little narrative of amateur medicine in the Michigan backwoods cannot be properly concluded without citing Captain Fred Johnson as the associate benefactor, for in his double round-trip journey with the amateur physician and his chest of medicines, he had rowed a heavy boat a distance of close to 24 miles within a period of little more than 12 hours. But Captain Fred thought nothing of it. This was the kind of thing neighbors did for neighbors in those rugged pioneer days.

Heat vs. Aging

Heat and humidity slow down the older worker in the performance of even moderately light work and cause fatigue to develop sooner at greater physiologic cost.

Work performance of the middle-aged and older worker are affected more by heat and humidity than previously has been recognized, reports Dr. Lucien Brouha of the Haskell Laboratory for Toxicology and Industrial Medicine, Newark, Delaware.

"Heat stress is involved in many industrial operations that are not usually classified as 'hot jobs,' particularly in summer time. For example, cardiovascular reactions to the same amount of moderate work become higher when the rise in ambient temperature is only from 60° to 72° F. . . . Higher heart rates during work and less complete recovery during rest periods lead to accumulated strain as the shift progresses. Fatigue appears sooner and results, in many instances, in lower productivity at greater physiologic cost."—L. BROUHA: Heat and the older worker, *Journal of the American Geriatric Society*, 10:35 (January) 1962.

The Physician Looks At Rehabilitation

The several articles which appear in this issue represent an attempt to present the current pattern of rehabilitative care and resources as it is evolving in the State of Michigan.

The facilities which just a few short years ago provided minor adjunct medical care chiefly in the area of physical therapy have grown into full scale centers where total rehabilitative care can be offered, following on, and frequently concurrent with, acute medical care.

In addition to comprehensive rehabilitation units now functioning in the large teaching centers, there have very properly developed a number of general hospitals that have fulfilled their obligations to the community in hospital programs which are aiming at provision of total rehabilitative care, contingent upon the availability of funds, trained personnel, work space and leadership. One could mention such very representative facilities as are presently at St. Josephs Hospital, Ann Arbor, Sparrow in Lansing, and Munson at Traverse City, etc., to name only a few of the resources available. Less formal programs oriented toward chronic disease and geriatric care are now operating in several areas in the state and others are in the planning.

Elsewhere in this series of articles one will find reference to the various resources which have served a guiding as well as financial role, among these being Blue Cross-Blue Shield, the very cooperative Workman's Compensation insurance carriers, State Health Department and Department of Vocational Rehabilitation. This latter mentioned agency has been instrumental in making funds available for the support of research and demonstration projects, a number of which are currently being funded totally or in part. Training of rehabilitation counsellors, medical social workers, rehabilitation nurses, therapists, orthetists and prosthetists and medical specialists has been underwritten with money authorized by the Office of Vocational Rehabilitation.

It is our earnest hope that this brief review series of what has been achieved in one of medicines brightest new frontiers will stimulate the private practitioner to continuing and concerted action in those areas of our state where the rehabilitative potential has not been fully developed.

David P. Gage, M.D.
State Medical Consultant, Vocational Rehabilitation
Chief Review Physician, Disability Determination Service

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The 1962 MCI Meeting

The 1962 Michigan Clinical Institute has passed into history and we report it with satisfaction.

We believe the program was an improvement even on those presented previously. We assigned ourselves the task of attending

practically every set program and observing throughout. We were much impressed with the interest, the delivery and with the scientific material presented. The presentations and discussions brought out new approaches to medical diagnosis and treatment, and we found that scientific research is peering into many unusual and unexpected corners. We had hints here and there that we are approaching a breakthrough into new concepts of cause, diagnosis and treatment.

We were happy to note that the program was uniformly well received. We cannot fail to look back over the years when this Clinical Institute was first established and see the tremendous improvement in materials and enthusiasm manifested.

There were two evening programs open to the public both of which we attended. The attendance of the public was unusually large, and the comments in the audience indicated everyone was very appreciative of what was being shown and of what was reported. From a scientific standpoint, the public was given an excellent picture of our ambitions and anticipated results. Some economic problems were also considered and the public given our attitude toward them.

Socio-economic problems, we are coming to believe, are just as important and maybe more so than the purely scientific ones which we have been answering for so many years. The Michigan medical profession has been kept abreast of the political implications for the future. Our membership is being appraised of our problems through THE JOURNAL, through our meetings but the public's general acceptance of our philosophy has not been to our liking.

Just recently the President and some of his followers proposed a medical program for the general public. In his last message to Congress, the President bemoans the needs of children and the aged. He proposes making vaccinations universally available to all children under five and to others who are having difficulty in securing them, suggesting national legislation to cover this measure. He speaks of federal government control of the meat industry, drugs and packaging. He forgets that 99.5 per cent or more of all meat sold in Michigan has had an inspection, much of it federal and some local, but as good as can be done.

Vaccinations are available in the State of Michigan and other states upon payment, if the patient is able to pay, and from health and welfare, if the patient cannot pay. The medical profession has urged vaccinations for children in general, especially against poliomyelitis, yet in spite of the constant effort, about 40 per cent are still not vaccinated when all they need to do is present themselves for free vaccination. His program cannot possibly be any better unless he solves some method of compelling everyone to be vaccinated.

The President mentions drugs which should be tested and guaranteed to produce what they claim before they are allowed to be sold. We have had such a federal law for 50 years. It is extremely rare for a cosmetic or drug to be placed on the market without having had adequate inspection and testing. He wants the labels to explain "truthfully" the exact contents of the drug and its expected action. Truthfulness is an attribute we all believe in, but how adequately has this administration explained to the public the details of this social security medical care of the aged? During the campaign, it was labelled medical care, and still is being so called. If this Bill should be passed by Congress, and we are still fearful, we shall look with anticipation at the surprise these older people meet when they go to the hospital for their "medical care" under this new proposed program and find there isn't one cent of medical care involved. There is hospital care, and nursing care, and nursing home care after they have been in the hospital.

Primarily, this program is supposed to take care of the aged who are in straightened circumstances, cannot afford to buy their own insurance, or pay their own bills. Let us anticipate their surprise when they find that immediately they have to deposit a minimum of $20 for two days of care and an extra $10 for each day up until they have paid $90. If they need any laboratory work or diagnostic service, they will have to pay the first $20. This has to be done each time they enter the hospital for a new condition. These supplementary payments are not cumulative, but are only for the one hospital admission. *These* are the people who could not afford to buy insurance or pay their own bills. Where will they get this amount of $110 each time they have to go to the hospital? Incidentally, there are insurance companies (the Blues and also commercial) which, for the amount of money the administration proposes to make these people pay for their services, would pay for a *non-deductible* policy to take care of these people including "medical" M.D. care.

Communication

In the matter of general understanding of the medical problem which includes everything having to do with health, we suppose we were reaching a sort of understanding with the public in general. An editorial in the *Saturday Evening Post* (Feb. 3, 1962) disabuses us. The title was "The Doctors and the AMA." We have been constrained to write a letter to the *Saturday Evening Post*, copy of which appears in these editorials. It may do some good, and it will relieve our own mind by the feeling that we have contributed somewhat to the more modern medical education of one of our great magazines.

Michigan Trains Executives

This winter, we reported that Thomas C. Paton of the Michigan Medical Service staff, who has been working largely in professional and medical relations and enrollment, has become Executive Director of Minnesota Medical Service. He has followed a precedent set over the years. John R. Mannix was the original Executive Director of Blue Cross and Blue Shield in Michigan, left Michigan to go into the Commercial Health Insurance field, but came back to Blue Cross-Blue Shield as Executive Director of Blue Cross of Northeastern Ohio, located in Cleveland. Next was Charles H. Coghlan, Assistant Director of Michigan Medical Service, who became Director-Executive Vice President of the Ohio Medical Indemnity at Columbus, Ohio. Lewis G. Hersey became the Executive Director of Medical Service Bureau of the Utah State Medical Association, in Salt Lake City. Raymond Mody became his assistant. John W. Castellucci became the Executive Vice President of the National Association of Blue Shield Plans. Jay C. Ketchum, Michigan's former Vice President and Executive Director, became the Executive Vice President of Medical Indemnity of America, Inc. and Health Service, Inc., established to supplement local coverages for national groups. Leonard J. Raider, M.D., Executive Vice President and Secretary of United Medical Service, the Blue Shield Plan of New York City, was trained and worked in Michigan. Lynn A. Doctor, President of United Medical Service of New York, came from Michigan Medical Service originally.

Health Economists

"On May 10, 1962, about 75 Health Economists (selected) will assemble for the first time in a working group for three days at the University of Michigan School of Public Health. The demands for medical care, the costs of illness, the role of medical care in collective bargaining and other trends will be among the topics under consideration.

"Solomon J. Axelrod, M.D., University of Michigan Bureau of Public Health Economics sponsoring the meeting, has invited Wilbur J. Cohan, Assistant Secretary of Health, Education and Welfare, and Walter Heller, Chairman of the President's Council of Medical Advisers to participate.

"U. S. Public Health Service has appropriated $27,000 to the University to finance and cover the costs of this meeting."—*UM News Release.*

Members of the Michigan State Medical Society who have been familiar with the many years of attempts to foist upon us a Compulsory Health Service, and the procession of Wagner-Murray-Dingel Bills, will recognize immediately some of these names and their import to the private practice of medicine. Cohan was the author of the original Wagner-Murray-Dingel proposal. . . . When the Governor's Study Commission made its first report six years ago, they suggested a two-year study by the leader of this conference. It took nearly three years of negotiations to find a study director who was acceptable to the four groups so intimately involved.

The day this news release appeared, one of the prominent papers raised the question of proper use of this $27,000. The names and objectives listed, classifies this conference as one to further the medical programs of the Kennedy administration tying "medical care" of the aged to Social Security. This is the group, including the Secretary of the Health, Education and Welfare Department who claim more legislation is needed to care for the millions who are old, ill, and unable to pay for or provide for their own health costs. Word has evidently leaked out that the Kerr-Mills law cannot or must not function.

According to reports, our own Governor Swainson wrote the President claiming the Kerr-Mills law could not function in Michigan, therefore we must have the Kennedy Social Security plan. Incidentally, his chief complaint about Kerr-Mills was that the lower income level was set too low. The medical profession has been asking for that level to be set higher. Actually, the law is working in areas of the State where it is allowed to work. Two conditions are needed: willingness, and complying with the law of the land.

Finances are one bugbear. Misrepresentation is a big item which is being used extensively, not just in Michigan.

If MSMS members are dumbfounded by the obvious implications and concerted effort to make the Kerr-Mills Law inoperative, they should look up the *AMA News* for March 5, 1962. Read the editorial "Kerr-Mills Proven." This was an account of the "West Virginia Story." It was reported in New York on a West Virginia date line that the State's Kerr-Mills program was bankrupt, and the State had cut payments down to maximum of only $40 for any surgery. Much investigation (and obstruction) showed the plan was in good financial condition with nearly 4 million dollars available to complete the year. It would work, if allowed to do so. Those operating the program admitted opposition, and that they favored Social Service approach, which would be more expensive but much less work locally.

Governor Swainson's chief criticism of Kerr-Mills Michigan plan was that only 20 per cent came in for service. Utilization was too low, therefore, it is inoperative. Most insurance companies would call that an extremely good report.

Letter to The Saturday Evening Post

Gentlemen:

I wish to comment on your editorial, "The Doctors and the AMA," in the *Saturday Evening Post*, February 3, 1962. You make some very glaring criticisms. You have failed utterly to appreciate the fact that the American Medical Association of today has been undergoing a very important change.

First, you mention the "increased cost of medical service." That is one item nobody can deny; however, the term is completely wrong. It is this same use of label that is responsible for so many of the troubles the medical profession sees ahead. How about this term? The implication is that the personal service of the doctor get most of this money. Actually, his services are only a very small part of it. The term should be "cost of health services." It includes costs paid the doctor which has increased approximately as the cost of living, except in some very selected and specialized services: intricate heart and blood vessel surgery or cranial surgery where a whole team is working together. It also includes nursing care, eight-hour duty, three shifts in these extremely serious cases. That should include medication. Those costs have gone up, too, but not outrageously. It also includes hospital services, and those costs have gone way up. In the beginning days of Blue Cross and Blue Shield, $3.00 to $5.00 would pay for a hospital day's charges. Now the lowest charges run above $30 per day.

You say the " 'AMA traditionally has spoken for the profession.' Traditionally, it 'opposed hospitalization insurance' and 'despite that opposition, approximately 130,000,000 Americans now are covered by some kind of prepaid medical insurance.' " Again the misnomer. The AMA never opposed hospital insurance, but for many years it did oppose "medical service insurance." So did insurance companies. Neither of these, as far as the medical and hospital sponsored programs are concerned, are actually insurance. Basically, they were both "service" contracts, guaranteeing to their subscribers "services" necessary—not an indemnity which could be used to pay for these services.

When the Doctors of Medicine appealed to the AMA headquarters for relief of our problems during the great depression years, it was just like a private individual appealing to the Supreme Court or the President of the United States to solve his problem. The AMA headquarters was just that far away from us. Hospital service plans had developed in small areas and were successful. Pioneer doctors appealed to the Medical Economics Department of the AMA for help in setting up a program by which a plan could be provided to pay medical costs. (By that, we mean the doctor, the surgeon, and others) for the 75 per cent of our public who had no jobs at all or were earning not over $2,500 a year. The AMA replied that they had no such information and that we should not worry about insurance. We should devote our time to the practice of medicine. I personally got that reply in the formative years of our Blue Shield program. Nobody had that information—even insurance companies. We worked it out the hard way—locally.

You mention socialized medicine—"the irony of this is . . . there is no serious support anywhere in America for anything resembling socialized medicine." The facts are—we do have socialized medicine. All of our military services are rightfully under socialized medicine. They get medical and hospital care and nursing care and drugs and appliances, furnished to them by persons who are working for the government, paid by the government, and who are rendering "service." Medicine has had this threat from the time of the old Wagner-Murray-Dingel Bills of the depression years, also through the Roosevelt and Truman years with the threat of "compulsory health insurance which rendered 'services' instead of means to pay for services." It was the term "compulsory" to which the profession objected in those bills. The profession wanted voluntary programs.

Senator Taft proposed a different bill which would make available, with the sanction of the government, a service much the same as is now being offered by the voluntary medical and hospital plans. The medical profession quite generally supported the Taft Bills, in fact some of us helped write that one.

The Kennedy administration now holds a very much more serious threat. The care of the aged has been built up for several years. Our Blue Shield always included them without termination of contract on account of age. Kennedy proposes (HR 4222) to put all of the over-65 beneficiaries under Social Security, for "health services." In advocating it, he said "for medical services." This Bill, instead of providing a general tax to cover this load of care, puts it under a very restricted compulsory tax which is applied now to the first $4,800 (proposed $5,200) anyone earns. Any earnings beyond $4,800 (proposed $5,200) are not subject to this tax, which puts the burden upon a restricted and low-earning group and exempts all others. Millions of those being assigned to Social Security for health benefits have never contributed to this tax. The objection of the medical profession was the limited source of the money to pay for the services, and the compulsory feature.

There is a law on the books passed just before the election—the Kerr-Mills Law. Members of the medical profession sponsored and advocated this law. They knew how it was passed by Congress with active

bureaucratic opposition. If allowed to work, that Law will provide support through combined federal, state and county help, in health care—medical, surgical, nursing home, et cetera, to any senior citizen earning less than an amount fixed in each state. Michigan fixed $1500, which is now in the process of being raised to $2,500 per person or remove the limitation.

The Kerr-Mills law does not cover the older citizen who is in comfortable circumstances or even affluent. There are millions of them. The Kennedy administration does not like this law, therefore is trying to discredit it and is supporting the program to put this "medical service" under Social Security instead of general tax. The administration spokesman in advocating this program talked about "medical services" until just recently, but they failed to tell the public no medical service is covered—that is, services of doctors of medicine or osteopathy. They are specifically exempted from the Bill. Hospital, nursing, nursing homes are covered. President Kennedy, himself, in one of his speeches, said the doctors claimed this was socialized medicine, but it could not be because it did not cover medical doctors' services, therefore could not be socialized medicine. The Bill is compulsory coverage of socialized hospital care, socialized nursing, socialized nursing homes. It opens the door to "service" instead of "money" benefits. That is socialism. All that is needed to make it socialized medicine is eliminating one word, "excepting," as referring to physicians—a very simple step after the one proposed has let down the barrier.

Let's give the AMA and its headquarters credit. Many changes have taken place over the past 20 years. The AMA is now completely and wholeheartedly supporting the program the grass roots have developed for so many years. The state organizations have been in this fight and have appreciated, as AMA does now, many failures in public relations.

Doctors have been urged to take their patients and their families into their confidence, to discuss and explain to them their medical and surgical problems. For many years, the medical profession has been trying to get promising young people to enter the study of medicine. The handicap is enormous. Securing a medical education now takes nine to 12 years following high school, at tremendous cost. Men who might be eligible, instead, go into the many scientific fields where from four to seven years of much less expensive schooling will qualify a man to earn approximately the same amounts that doctors do. The "seeming affluence of the doctor" has its bad influence, but most of it is "seeming" instead of actual. In Michigan, several hundred doctors have dropped out of the Michigan State Medical Society and American Medical Association—or never joined—because they could not afford it, and could not pay the dues, approximately $175 a year. We hope, in some way, the general public can get to understand the difference in some of these appellations used. Every cost of living index published lists medical care at a rather high figure. Actually, that is hospital care and should be so indicated. Hospital charges include provision of equipment for the vastly complicated new surgery which is being done.

WILFRID HAUGHEY, M.D.

Appreciation

We wish to thank most sincerely David Gage, M.D., of Lansing, for his very valuable assistance in assembling most of the materials which make up the original papers in this issue of THE JOURNAL.

Gutter Attack on the AMA

Detroit Free Press, March 28, 1962

Democratic National Chairman John M. Bailey descended into the deepest and dirtiest part of the political gutter the other day when he likened members of the American Medical Association to John Birchers because of the AMA's opposition to the Administration's compulsory health insurance bill.

The kind of smear to which Mr. Bailey resorted is an example in which demagogs and unprincipled politicians will use such organizations as the John Birch Society. Those who employ that technique are as bad as the John Birchers themselves.

It does not make any difference whether the majority of American doctors favor or oppose the Administration's medical plan, or whether they are right in whatever position they take on the issue.

The important thing is that they have a right to their opinions, as well as the right to express themselves.

By tossing mud as he did, Mr. Bailey seeks to smother dissent from his own views. Doing so, he is in reality employing the very methods which make such extreme organizations as the Birch Society so distasteful.

Fortunately, Mr. Bailey was not speaking for the Democratic Party. And in resorting to such outrageous language he certainly has badly damaged his usefulness as its chairman and official spokesman.

The human heart is a "marvelous machine" that pumps blood through the body's 12,000-mile network of arteries and veins at the rate of a gallon a minute.

Pathology Comment

Items published here are provided by the Michigan Pathological Society

Evaluation of Laboratory Results

Laboratory results are, of course, only meaningful when interpreted in the light of the physician's total knowledge of the individual patient. Identical laboratory results may have entirely different meanings for two different patients.

Testing procedures vary greatly in dependability. For some laboratory tests several alternative methods, having different degrees of reliability, are available. For other measurements there may be only one acceptable procedure. In any case the physician should be aware of the degree of reliability he can expect, and where several choices are open to him, he can choose the procedure having the most appropriate degree of reliability. In some instances briefer or less expensive procedures provide results having entirely adequate clinical significance.

Another important factor in producing variability of laboratory results is the human element. No fully quantitative procedure, no matter how highly refined, nor how skilled the operators, will yield absolutely identical results either to two technologists running simultaneous determinations or to one technologist running duplicate determinations on a single sample. Consequently, proper interpretation of laboratory results requires awareness of procedural limitations and variabilities that may be encountered even with adequate technic. Your clinical pathologist should be consulted in situations in which the choice of a test or its interpretation is not clear.

Variation in Measurements

Two criteria of exactitude are usually used in appraising variability of laboratory measurements—these are *accuracy* and *reproducibility* (precision). A distinction between these two concepts is useful in practical interpretation of laboratory results.

Accuracy

The ability of tests to reflect *true* values of specimens is termed *accuracy*. If a solution of glucose containing 100 mg. per 100 ml. is divided into many samples, all analyzed separately by a laboratory over a period of months, the results might yield an average of 120 mg. per 100 ml. and individual values ranging from 80 to 160 per 100 ml. Inasmuch as the degree of accuracy reflects the deviation from the true value of 100 mg. per 100 ml., it may be said to average plus 20 mg. and to range from minus 20 mg. to plus 60 mg. per 100 ml.

Reproducibility

Frequently the clinician is more interested in the *reproducibility* or *precision* of a test than in the degree of accuracy attainable. Reproducibility reflects the capacity to yield the *same* value (which may or may not be the true value) for a given concentration of substance. In a glucose tolerance test, for example, absolute accuracy of the values for blood glucose at each interval is not required, since changes in the values plotted on the tolerance curve are the primary concern. To be comparable, however, each value must be reproducible. Close correspondence of laboratory estimation and true value is highly desirable in clinical diagnosis because it results in the test becoming a more reliable diagnostic and prognostic adjunct. A high degree of accuracy permits valid comparison of results from one laboratory to another. This not only helps the diagnosis and evaluation of lab reports from several laboratories, but also helps to eliminate the variance in clinical literature.

High reproducibility of a test conducted by a single laboratory may enable the clinician to establish a set of normal values on the basis of experience. The test result for a given patient can then be compared against that "normal range." In addition, results of repeated tests in the same patient are reliable enough to permit evaluation of progressive diseases or of the results of therapeutic measures.

Upper and Lower Limits of Normal

Upper and lower limits are usually set to include 95 per cent of the normal population—the ± 2 standard deviation limits. A value outside of these limits indicates an abnormality 19 out of 20 times. Using quality control methods, laboratories can now determine the unavoidable variation of each method and calculate the "*significant change limit.*"



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When you suggest to your patients that they have a big glass of orange juice for breakfast, or for a snack, or when they want to raid the refrigerator, the deliciousness of Florida orange juice will give you assurance that they'll *want* to carry out your recommendation. You'll be helping them to the finest drink there is—by the glassful or the barrel.

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MICHIGAN DEPARTMENT OF HEALTH
ALBERT E. HEUSTIS M.D., State Health Commissioner

Preschool Hearing and Vision Screening

As a result of advances in medical science over the past few decades, particularly the development of newer drugs and improved surgical techniques, many children today survive who would otherwise have died. Some of these children, as a result, are affected with certain abnormalities ranging from mild to severe. Especially noticeable is the increasing prevalence of children with communication disorders affecting sight and hearing and directly related to their ability to learn. As a result, the need for early identification of children with impaired vision or hearing is more important than ever before.

Traditionally, public health workers have been active in developing and conducting tests to screen the hearing and vision of school children, but all too often identification of vision or hearing problems in school children comes too late for effective remedial treatment. Thus it has been clear for some time that there is an imperative need to reach these children before they enter school. However, the limited ability of preschoolers to communicate verbally, plus the lack of effective screening devices, have frustrated efforts to test hearing and vision in these children. Now new techniques and new devices have been developed for these purposes.

Vision Screening

A commercial model of a vision screening device designed by staff members of the state health department will be used for the first time this year to test the vision of preschool children. The device has been used successfully to screen three-year-olds in a number of experimental programs which have been conducted during the past several years. However, children three and one-half to four and one-half years old are selected for mass screening programs because they are almost all old enough to communicate with, yet young enough for effective corrective treatment. In addition, children at this age more readily accept glasses or patches to strengthen weak eyes and if they have learned to accept glasses before entering school, there is less chance for psychological trauma.

The new screening device avoids the use of the abstract terms, left, right, up, and down. Instead, it employs simple line drawings of a rabbit, flower, grass, and clouds. About six per cent of the children screened in the experimental programs were referred to an eye doctor because of possible vision defects.

At present some preschool vision screening is scheduled in Antrim, Calhoun, Charlevoix, Emmet, Grand Traverse, Ingham, Kalamazoo, Livingston, Macomb, Marquette, Midland, Shiawassee, and Wayne counties.

Hearing

The hearing of the three and four-year-old can be tested adequately by means of the standard pure-tone audiometer as presently used in school hearing testing programs. Hearing screening of preschoolers has been attempted in several counties in Michigan for the past several years. Present plans call for a series of such programs so that more and more three and four-year-olds will be screened for impaired hearing.

However, the real problem in detecting hearing defects early, is in the infant of eight or nine months. If hearing loss is to be detected in children of this age, the opportunity for corrective procedures is greatly enhanced. Early diagnosis offers the only reasonable possibility of preventing irreversible changes in the child. In an effort to determine the feasibility of extensive screening of such infants, plans have been made to establish a pilot program for the auditory screening of eight to nine-month-old children in a clinic situation.

The experimental auditory screening tests depend on the child's ability to respond to sounds which vary in their intensity and which have the high, middle, or low frequency characteristics representative of the speech range. The technique involves the use of distraction. An observer attracts and holds the child's visual attention while a tester attempts to distract the child by presenting a sound while he is out of range of the child's vision. The validity of the test depends upon the skill of the observer in interpreting the responses, the agility of the tester, and the knowledge of the principles basic to the test on the part of both members of the team.

It should be emphasized that the test is not a measure of hearing. It does serve, however, as a practical casefinding tool by identifying those infants in need of further audiometric study.

Urges Physical Fitness Efforts by Doctors

The AMA's Department on Health Education urges that physicians and medical societies must provide the medical leadership in working out the health aspects of physical fitness programs.

"We hope that medical societies will offer their help to schools in implementing the fitness program rather than waiting for the schools to make the request. No medical society activity has a greater potential for genuine service to youth," the Department states.

Among the suggestions offered to medical society school health committees were: Support education authorities in their efforts to develop suitable adaptations of the President's Council recommendations for youth fitness programs; Counsel with local school officials on the health aspects of fitness and in reference to health teaching and the physical education programs; Encourage adequate health supervision in connection with participation in physical education and athletic activities.

The President's Council on Youth Fitness has outlined a five-point program:

1. Raise pupil's physical capacities to a desirable level.
2. Direct class instruction in health and physical education at both the elementary and secondary school level.
3. Promote intramural sports opportunities for students in grades 4-12.
4. Promote more interschool sports for the physically gifted youth.
5. Encourage more opportunities for informal physical recreation in such activities as hiking, skating, skiing and cycling.



AMA Begins Department Of Medicine and Religion

"How to provide better health care for 'the whole man.' That is the chief concern of our new department." This is the Rev. Dr. Paul B. McCleave's definition of the American Medical Association's new Department of Medicine and Religion which he heads.

The department was opened last September to encourage closer relationships between physicians and clergymen in patient care. Dr. McCleave feels that the best patient care is achieved when physicians and clergymen are able to share mutual concern for the patient and when each contributes his special talents to the problem at hand. Terminal illness, he points out, is an excellent example of an area in which the clergy can be of particular help to physicians.

Dr. McCleave is currently working with medical society leaders and physicians in nine states where pilot programs will be launched.

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Preparedness Conclave Set

"Community Preparedness for Emergencies" will be the theme of the 10th annual National Conference on Disaster Medical Care in Chicago, June 23. Sponsored by the Council on National Security of the American Medical Association, the one-day meeting at the Palmer House immediately precedes the opening of AMA's 111th annual meeting. The keynote address, "Preparedness at the Community Level—an Urgent Goal," will be delivered by Luther L. Terry, M.D., the surgeon general of the United States.

Health Sciences Investment Tripled

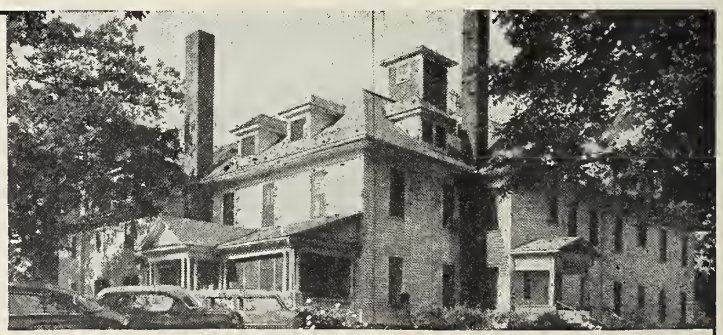
The federal government is expected to triple its investment in the health sciences within eight years, Luther L. Terry, M.D., surgeon general of the United States, told the School of Public Health at the University of Michigan. He said today's expenditures for the United States Public Health Service of about $1 billion annually may reach $3 billion annually by 1970.

He said future health service activities would include training of research personnel; prospect that the government will accept responsibility for two-thirds of the costs for construction of new health facilities; creation of national institute of child health and human development and expansion of the division of international health.

Seek 50-Year Names

A membership campaign is being conducted by the "Fifty-Year-Club-of-American Medicine," which will hold its third meeting in conjunction with the American Medical Association Annual meeting June 24-28, 1962, in Chicago. Interested physicians who have been in practice 50 years or more may write J. H. McCurry, M.D., Secretary, Cash, Arkansas, if interested in joining.

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Placement Service Ready to Help

Do you need an associate to help with a heavy patient load? Or perhaps you need some temporary help in your office during the summer?

In either case, the Michigan Health Council M.D. Placement Service may be of assistance to you. The Health Council has operated the Placement Service under the guidance of the Michigan State Medical Society for the past eight years. In that time it has helped more than 450 doctors of medicine find locations to practice in Michigan.

A number of M.D.s, who are looking for a place to establish a practice, are registered with the Placement Service. A letter or a telephone call to the Michigan Health Council, P.O. Box 143, 712 Abbott Road, East Lansing, Michigan (EDgwood 7-1615) will begin the process to put you in touch with the practitioner you might need.

There is no charge for this service. The placement program is conducted with the aid of a financial grant from the Upjohn Company, Kalamazoo.

If you are seeking a Locum Tenens for the summer months, list your opening with the Service as soon as possible.

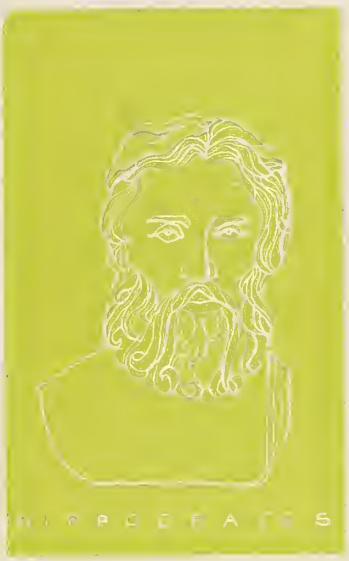
Medical Assistants Propose Certification Examination Trial

The American Association of Medical Assistants will hold a trial run of their proposed certifying examination in September, 1962, in conjunction with their annual convention in Detroit.

The examination is the result of extensive investigation and preparation by a Certification Committee established three years ago. Miss Hallie Cummins, R.R.L., Caro, is a member of the committee.

The proposed examination will be in three sections. The first section to be taken by all examinees includes medical terminology, anatomy and physiology, personal adjustment and human relations, law and economics in medicine, and medical ethics and etiquette. Second section will cover medical secretarial work including credits and collections, written and oral communications, records, medical and special, in addition to secretarial skills and accounting. The third section will be for the medical assistant and will include examination room techniques, sterilization procedures and care of equipment, orientation to bacteriology and hematology, and orientation to laboratory techniques. Possible optional subjects may be principles of physiotherapy, electrocardiography and x-ray.

Candidates will be permitted to apply for Section 1 plus their choice of either Section 2 or 3, or they may apply for all three sections. The trial run scheduled for this Fall will be for the purpose of evaluating the examination. No charge will be made and candi-



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dates will not be informed of the results of the examination. This trial run examination will not certify the candidate in any way. It is anticipated that this pilot examination will put the AAMA in a position to offer a Certifying Examination within a year, with centers set up in various sections of the country and will have the approval of the American Medical Association as well as the State Medical Societies.

Women M.D.'s Invited

The American Medical Women's Association extends an invitation to all women physicians attending the AMA annual meeting in Chicago, to be their guests at a brunch on Sunday, June 24, at 11 a.m. at the Essex Inn.

"Medical Woman Power—Can It Be Used More Efficiently?" will be discussed by a panel with audience participation.

Thoracic Society Elects

E. Osborne Coates, M.D., Detroit, is the new president of the Michigan Thoracic Society. He succeeds Wilbur M. Steininger, M.D., also of Detroit.

Other officers elected at a recent MTS dinner meeting were John L. Isbister, M.D., Lansing, vice president, and Edward G. Nedwicki, M.D., Dearborn, secretary-treasurer.

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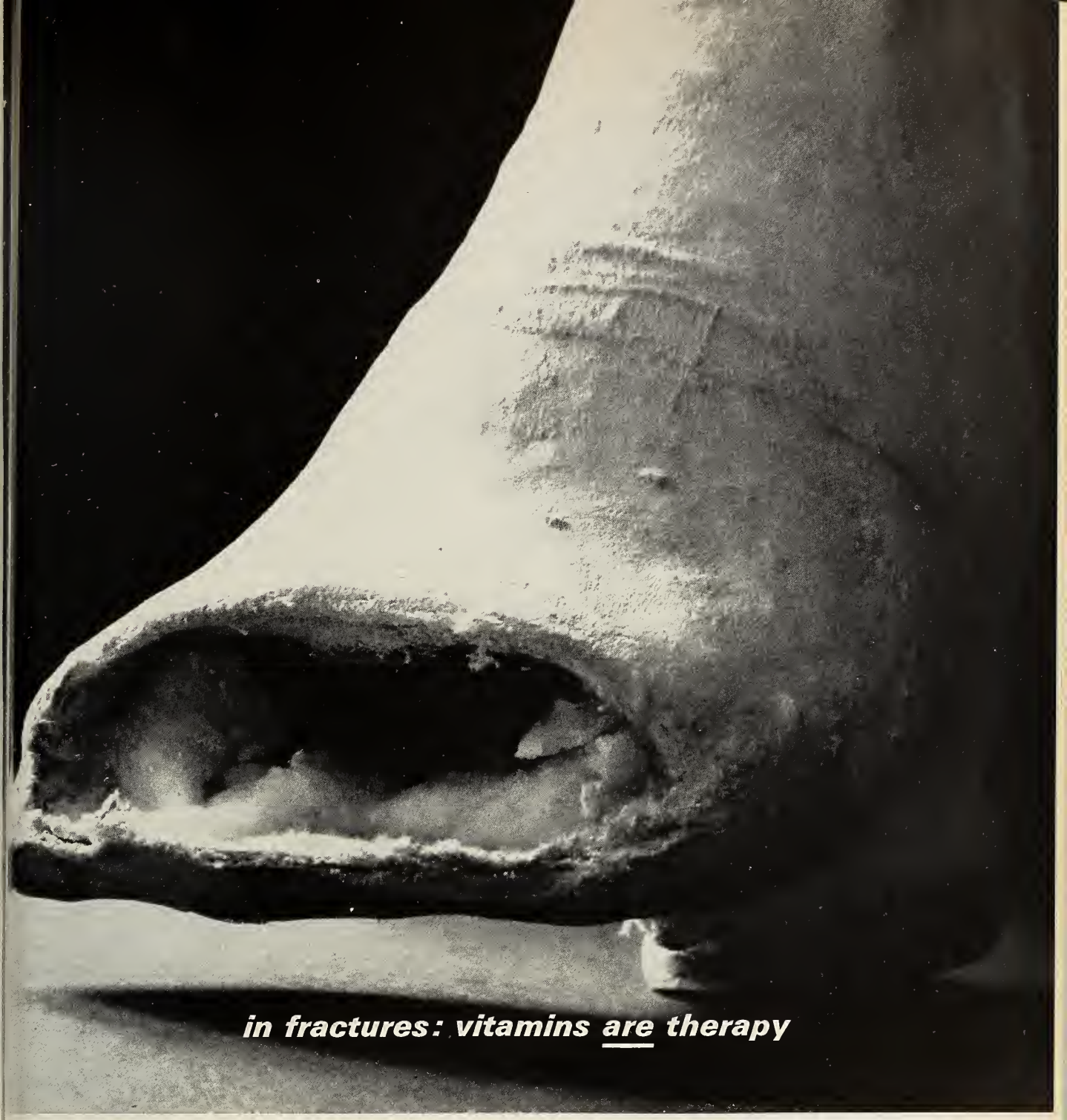
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Vitamin B_{12} Crystalline	4 mcgm.
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HEART BEATS

(This material is provided by the Michigan Heart Association)

Michigan Heart Association Research Grants-in-Aid, 1962-1963

1. Marion I. Barnhart, Ph.D., Wayne State University
"Cellular Sites for Synthesis of Proteins Important in Blood Coagulation"
2. Raymond J. Barrett, M.D., Harper Hospital, Detroit
"A Method of Extending and Improving the Surgical Attack Upon the Aneurysms of the Extreme Ascending Thoracic Aorta"
3. Bernard Bercu, M.D., Wayne County General Hospital, Eloise
"Biopsy of the Myocardium. The Potential Gradient Across the Arterial Wall"
4. Richard Bing, M.D., Wayne State University
"Myocardial Metabolism and Contractile Proteins of the Heart"
5. Larry H. Birch, M.D., Butterworth Hospital, Grand Rapids
"Cardiac Resuscitation—Development of a Mechanical Unit for Restoration and External Augmentation of Cardiac Function"
6. James Conway, M.D., University of Michigan
"Hemodynamic Effects of Vascular Congestion"
7. William Coon, M.D., University of Michigan
"The Use of Fibrinolytic Preparation in the Treatment of Vascular Thrombosis"
8. Vernon Dodson, M.D., University of Michigan
"Anti-heart Antibodies"
9. Allen Hennes, M.D., Wayne State University
"Studies of Lipid Metabolism with C-14 Acetate in Young Patients with Myocardial Infarction"
10. Joseph Hess, M.D., Wayne State University
"Evaluation of the Serum Creatinephosphokinase Test in the Diagnosis of Myocardial Disease"
11. Sibley Hoobler, M.D., University of Michigan
"Arteriosclerosis and Hypertension"
12. Thomas N. James, M.D., Henry Ford Hospital, Detroit
"Morphology and Electrophysiology of the Heart"
13. Prescott Jordan, Jr., M.D., Children's Hospital, Detroit
"Cardiovascular Surgery Research"
14. Jon J. Kabara, Ph.D., University of Detroit
"Simultaneous Use of Tritium and Carbon-14 Metabolites to Study the Dynamics of Lipid Metabolism"
15. B. M. Lewis, M.D., Wayne State University
"Pulmonary Capillary Bed in Cardiac Disease"
16. Robert E. Mack, M.D., Woman's Hospital, Detroit
"Adrenal Function in Renoprival Hypertension"
17. John S. Meyer, M.D., Wayne State University
(1) "Pathogenesis of Vasospasm in Hypertensive Encephalopathy." (2) "Cerebral Metabolism and Blood Flow in Vascular Disease"
18. N. J. Mizeres, M.D., Wayne State University
"The Neural Effect on the Coronary Circulation"
19. E. E. Muirhead, M.D., Woman's Hospital, Detroit
"The Influence of Renal Cells Grown in Tissue Culture on Experimental Hypertension and a Study of the Cardiovascular Lesions of Hypertension"
20. Anthony Nolke, M.D., Children's Hospital, Detroit
"Blood Pressure Determination in Small Infants"
21. Jan Nyboer, M.D., Harper Hospital, Detroit
"Evaluation of Ultra-Low Frequency Ballistocardiography and Electrical Impedance Plethysmography"
22. Horace Pease, M.D., Central Michigan University, Mt. Pleasant
"Radioelectrocardiography Under Controlled Conditions and Comparison with Exercise and Post-exercise Electrocardiograms including Master Two-Step Series and Exhaustive Work in Apparently Normal and Healthy College Males"
23. John A. Penner, M.D., University of Michigan
(1) "Evaluation of Anticoagulant Control Methods" (2) "Effect of Glycolytic Enzymes on Clot Retraction"
24. Raymond Read, M.D., Wayne State University
"The Influence of Blood Flow on the Incidence of Thrombosis in Arterial Prosthetic Grafts"
25. J. Walden Retan, M.D., Wayne State University
"An Investigation of Impaired Glucose Tolerance and Hyperuricemia in Hypoperfusion States"
26. Herbert Robb, M.D., Wayne State University
"A Study and Recording of Micro-vascular Dynamics as Altered by Disease and Various Forms of Medication"
27. J. N. Schaeffer, M.D., Rehabilitation Institute
"Objective and Subjective Physical Disability Evaluation in Hemiplegia"
28. Walter Seegers, Ph.D., Wayne State University
"Blood Coagulation: Purification of Inhibitors and Mechanisms of their Action"
29. Herbert Sloan, M.D., University of Michigan
"Transplantation of the Canine Heart"
30. D. Emerick Szilagyi, M.D., Henry Ford Hospital, Detroit
"An Investigation of the Use of Vascular Substitutes in the Replacement of Arterial Segments"
31. Alan P. Thal, M.D., Wayne State University
"The Mechanism of Peripheral Vascular Collapse"
32. Donald Vernall, Ph.D., University of Michigan
"The Teratogenic Effects of Trypan Blue on the Cardiovascular System of Mice"
33. John Weller, M.D., University of Michigan
"Study of Antihypertensive Agents"
34. Park Willis, III, M.D., University of Michigan
"Clinical Epidemiology and Therapy of Thromboembolic and Occlusive Vascular Disease"
35. William Wilson, M.D., University of Michigan
"Changing Intracardiac Conductivity and the EKG"
36. A. J. Zweifler, M.D., University of Michigan
"Studies in Experimental Thrombosis"

Eye-Grounds in Hypertension

A slide set with tape recorded narration is available from the Michigan Heart Association. The slide set

(Continued on Page 656)

MSMS Honored For Traffic Effort

The Michigan State Medical Society was honored recently for its efforts to reduce traffic deaths in Michigan. A citation was presented by the Automobile Crash Injury Research Project of Cornell University. The data processed by MSMS members reflected in the work done by auto safety engineers during the past five years, the announcement pointed out.

* * *

HONOR HANOVER M.D.—John Van Schoick, M.D., who has practiced 43 years in Hanover, was honored by the Hanover-Horton community April 29 at the high school. A graduate of the University of Michigan medical school, Doctor Van Schoick has delivered more than 6,000 babies—"and he has never lost a mother," according to one of his associates.

* * *

TRIBUTE PAID—Many residents of Gogebic, Ontonagon and Houghton counties paid tribute recently to Harold B. Hogue, M.D., for his more than 30 years of service to the area. The event was his 61st birthday. More than 500 guests participated in the community event.

* * *

RECEIVES PLAQUE—Keith McCall, M.D., assistant director of laboratories for the State Health Department, recently received a plaque from the Blood Bank leaders of the American Red Cross. Doctor McCall was the key man in designing and supervising engineering of the department's blood derivative fractionation plant.

* * *

YAMASAKI HONORED—Minoru Yamasaki, of Birmingham, architect for the MSMS headquarters in East Lansing, was the architect for the U. S. Science Pavilion at the Seattle World's Fair. Five modern Gothic arches of concrete rise 100 feet above the fairgrounds to give focus to the Science Pavilion buildings. Yamasaki was born in the Seattle-Portland area.

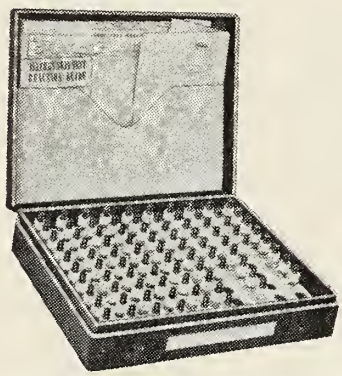


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GERIATRICS GRANTS—The American Geriatrics Society recently announced the establishment of three $1,800 grants to encourage resident physicians to devote more time to the study of the medical problems of the aged. The grants, by Lederle Laboratories, will augment salaries paid to residents while they continue their medical education.

* * *

LIBRARY DESTROYED—The research library of the Institute of Experimental Medicine and Surgery of the University of Montreal has suffered extensive losses due to fire. In attempting to rebuild the library, the Institute asks MSMS members to send all available reprints of their work, especially those dealing with Endocrinology and stress. Reprints should be mailed to: Hans Selye, Professor and Director, Institute of Experimental Medicine and Surgery, University of Montreal, Post Office Box 6128, Montreal 26, Canada.

* * *

CAREER TRENDS—From 1950 to 1961 there has been a net increase of 15 per cent of students desiring to enter specialty practice and a corresponding 15 per cent decrease in the number of students wishing to enter general or family practice. The proportions of students desiring to enter upon careers of teaching or research has essentially remained steady at 4 per cent. And 78 per cent of the 1961-62 group of interns expect to enter specialty practice.

* * *

WAYNE ALUMS RESPOND—Homer D. Strong, director of alumni relations and executive director of the Wayne State University Alumni Fund, reports that total contributions in 1961 were a record $99,609. He said 5,975 alumni contributed to the fund, an increase of 50 per cent over 1960. The total received was up 25 per cent over a year ago.

* * *

STUDY MEDICAL AID—A two-week institute on the administration of medical care for the needy will be held at the University of Michigan School of Public Health starting July 9. The program will consider new approaches to the provision of medical care in a series of seminars and lectures conducted by U-M faculty members and guests.

* * *

PHOENIX STUDY—A two-year study of Schistosomiasis promises a limited immunity. Success with laboratory animals gives hope. The disease affects 40 per cent of the population of Egypt and from 100 to 200 millions generally. The disease is caused by a parasite which at one stage infests a species of snails found in fresh waters throughout the world. The project is sponsored jointly by Michigan Phoenix Project, the Rockefellar Foundation and International Cooperation Administration.

* * *

SABIN RELEASED—The United States Public Health Service announces that it had licensed the third type of live polio vaccine by Sabin. This is the one taken by mouth. The other two types were released several months ago. The licenses were issued to Pfizer, Ltd., England, and Lederle Laboratories of America. Lederle and Wyeth were making types one and two. All types will soon be available.

(Continued on Page 652)

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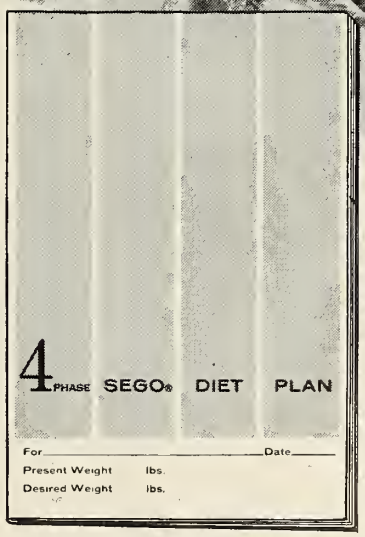
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(Continued from Page 650)

WITHDRAWS MONASE—The Upjohn Company has withdrawn its product Monase from the market. Monase, a psychic energizer or mood elevator, found useful in treating depressed patients, was first marketed in June, 1961. In spite of extensive pre-marketing animal and clinical studies which indicated a wide margin of safety, an occasional patient has developed a blood disorder called agranulocytosis in association with the administration of Monase.

* * *

ELECTED—Paul Lowinger, M.D., Detroit, has been elected a scientific associate of The Academy of Psychoanalysis. Dr. Lowinger serves on the Detroit committee of the National Conference of Social Welfare, conducting a study on "Social Implications of Automation."

* * *

RESIDENTS' DAY—The Wayne State University College of Medicine was host at its fourth annual Residents' Day in Obstetrics and Gynecology for 250 doctors from six states and Canada. The program started with Assistant Dean Ernest M. Gardner, M.D., and closed with the "Milton A. Darling Lecture" by Robert W. Noyes, M.D., Vanderbilt University. The program featured seven papers and three panel discussions.

* * *

TRAVELING SCHOLARSHIP—Ryan Tolsma, of Drenthe, a senior at The University of Michigan Medical School, has received a scholarship to a missionary hospital in Nigeria, Africa. Ryan, originally from The Netherlands, is one of 33 medical students selected for foreign clinical experience by the Association of American Medical Colleges. The fellowships are supported by grants from Smith, Kline & French Laboratories.

* * *

RESEARCH GRANT—The National Science Foundation has awarded $45,000 to The University of Michigan to support research on the structure of membranes in micro-organisms. Purpose of the grant is to acquire an electron microscope and equipment for slicing bacteria for examination.

* * *

FILM STERILIZER TECHNIQUES—Wyeth Laboratories, Philadelphia, has released a new 29-minute, 16-mm color, sound motion picture on "Sterilization Procedures for the Medical Office." Produced by Wyeth in association with the American Association of Medical Assistants, the new film explains the processes used for sterilization, shows details of how they are applied and defines standards that must be maintained regarding wrapping methods and materials, length of exposure to sterilization, and other vital details.

* * *

ELECT STATE M.D.'s—The Canadian-American Medical Ski Association, at its recent second annual meeting at Mission Hill Lodge, expanded to include dentists and voted to change the name to the Canadian-American Medical and Dental Ski Association. Named to office were Donald Finlayson, M.D., of Sault Ste. Marie as President; Donald Conley, M.D., of Marquette, vice president; and John Hall, D.D.S. of Sault Ste. Marie, Ontario, president-elect. T. J. Trapasso, M.D., of Sault Ste. Marie, was re-elected to the

post of secretary-treasurer. The next annual meeting will be held at Mission Hill Lodge the last week in February, 1963.

* * *

RESEARCH GRANTS AT WAYNE—Wayne State University's Board of Governors has accepted $515,823 in gifts and grants for research at the College of Medicine.

The U.S. Public Health Service, National Institutes of Health, led the list with a total of $460,919 for 11 projects. The largest was $187,728 for general support of research and research training programs in science related to health. It will be under the direction of Dr. Gordon H. Scott, vice president for medical college development and dean of the College of Medicine. The grant is based on a flat $25,000 plus a percentage of federal and nonfederal funds spent on research during the previous year.

"This type of grant is new this year," Dr. Scott said, "and this contribution to the overall support of our College of Medicine is eagerly received. The funds will be used for equipment, personnel and various other needs."

Other large grants from the same source included $99,702 to continue myocardial metabolism research under the direction of Richard J. Bing, M.D., chairman of the department of internal medicine.

The next largest USPHS-NIH grant was $43,312 to continue research entitled "Myocardial Revascularization" conducted under the direction of Alan P. Thal, M.D., chairman of the department of general surgery.

In addition to the gifts and grants, the Board also approved a contract with the USPHS for $77,500 to continue air pollution studies under the direction of Arthur J. Vorwald, M.D., chairman of the department of industrial medicine and hygiene.

U-M RESEARCH GIFTS—The Board of Regents, at its meeting March 16, accepted funds for medical benefits:

From the estate of Frederick E. Walton of Owosso, the Regents accepted $14,113.38 to establish the Frederick E. and Maud Walton Research Fund for research in diseases of the heart and cancer. The fund is to be under the direction of Dean William H. Hubbard, Jr., M.D., of the Medical School.

The Drusilla Farwell Foundation, 429 Ford Bldg., Detroit, has given $7,500 to establish a loan fund for the benefit of doctors of medicine in training at the University of Michigan.

The Regents accepted $5,000 from the Forney W. Clement Memorial Foundation (Charles W. Shull, 1434 Dickerson, Detroit 15, Treasurer) for use by the Hospital School at University Hospital. The money comes from Kiwanis Clubs in Michigan.

From the Upjohn Company, Kalamazoo, the Regents accepted $5,000 for research in bacteriology.

Michigan Lions Eye Bank, Ann Arbor, has given $1,200 for the Michigan Eye Collection Center at the U-M Medical Center.

* * *

APPOINTED—The appointment of Colonel William F. Cook, USAF, MC, as command surgeon for the Tactical Air Command was announced recently.

Colonel Cook came to Langley AFB in 1959 as deputy command surgeon for TAC. Colonel Cook, a native of Shepherd, was a registered pharmacist before entering the University of Michigan School of Medicine, where he took his M.D. degree in 1935.

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EXAM TIME—Applications for certification in the American Board of Obstetrics and Gynecology, new and re-opened, Part I, and requests for re-examination in Part II are now being accepted. Candidates should inquire by writing to the Executive Secretary, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6.

MEETINGS, USA

June

American College of Chest Physicians 28th Annual Meeting, Morrison Hotel, Chicago, June 21-25.

Institute For Medical Librarians, Library of Medical Science, Chicago, June 10-15.

American Medical Association Tenth Annual Disaster Medical Care Conference, Chicago, June 23, sponsored by the Council on National Security, AMA.

American Diabetes Association, Inc., The Conrad Hilton, Chicago, June 23-24. J. Richard Connelly, 1 East 45th St., New York 17, Executive Director.

American Geriatric Society, Palmer House, Chicago, June 18-20. Dr. Edward B. Allen, 21 Greenridge Avenue, White Plains, New York, Secretary.

American Medical Association, Annual Meeting, Chicago, June 24-28. Dr. F. J. L. Blasingame, 535 North Dearborn, Chicago 10, Executive Vice President.

Medical Library Association 61st Annual Meeting, Sheraton-Chicago Hotel, Chicago, June 3-8. Miss Ruth J. Mann, Mayo Clinic Library, Rochester, Minnesota, Secretary.

Woman's Auxillary to the American Medical Association, Pick-Congress Hotel, Chicago, June 24-28. Miss Margaret N. Wolfe, 535 North Dearborn, Chicago 10, Secretary.

September

The Twelfth International Congress of Dermatology will be held in Washington, D. C., September 9-15. (Charles S. Livingood, M.D., Detroit; and Hermann Pinkus, M.D., Detroit, will be Secretary and Assistant Secretary.)

International College of Surgeons, Waldorf-Astoria, New York City, September 9-13.

The Fifth Annual International Food Congress at New York Colliseum, Sept. 8-16.

October

American Medical Writer's Association, Sheraton Park Hotel, Washington, D. C., October 11-13.

American Academy of Opthalmology and Otolarngology, Annual Session, Las Vegas, Nevada, November 4-9.

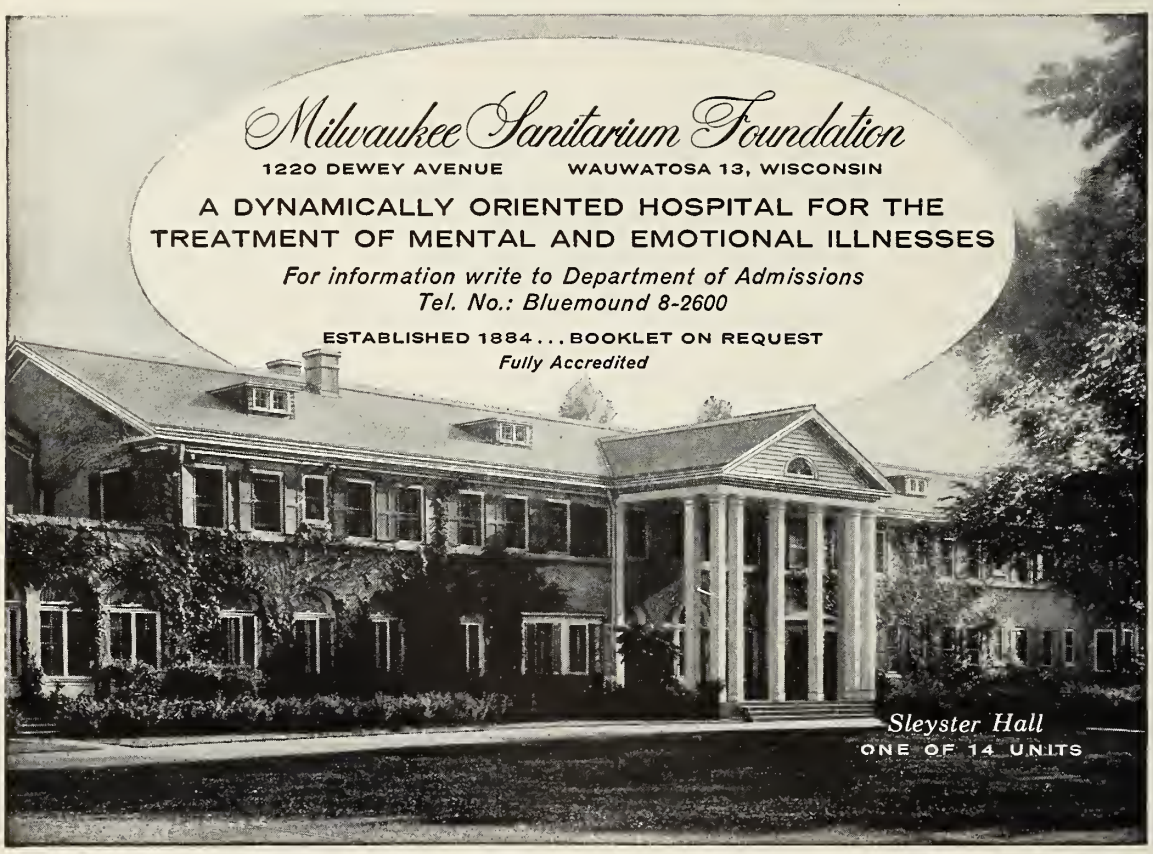
Fourth Biennial State Medical Editor's Conference, Hilton Hotel, Denver, November 3-4.

MICHIGAN MEDICAL MEETINGS AND CLINIC DAYS

June 15-16-17—Upper Peninsula Medical Society Meeting, The Gateway, Land O'Lakes, Wisconsin

August 2-3—Coller-Penberthy Clinic at Traverse City. *(Note:* Change of dates due to conflicts.)

September 23, 24, 25—MSMS Annual Session, Sheraton Cadillac Hotel, Detroit





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IN MEMORIAM

MORTIMER E. DANFORTH, M.D., eighty-two, Detroit physician since 1919, died March 22, 1962.

Prior to his retirement in 1946, Doctor Danforth had been chief of obstetrics at Detroit's Deaconess Hospital for 19 years, and a member of the staff there during all his years of practice. In recent years he had worked with the Salvation Army's Harbor Light Center in treating the unfortunate.

He attended the University of Michigan and graduated from the Grand Rapids Medical College in 1902.

He was a Life member of the Michigan State Medical Society and a Fellow of the American College of Surgeons.

* * *

L. STANFORD EVANS, M.D., sixty-one, Detroit physician, died March 4, 1962.

A general practitioner in Detroit for 25 years, Dr. Evans was a graduate of Ohio State University's medical school. He was an active member of the Michigan State Medical Society.

* * *

CHARLES J. LILLY, M.D., sixty-nine, Detroit physician since 1922, died February 26, 1962.

A 1922 graduate of Wayne State University College of Medicine, Dr. Lilly interned at Harper Hospital, Detroit, and has been on the staff of Providence Hospital since his graduation from medical school.

He was a member of the American Academy of General Practice, and an active member of the Michigan State Medical Society.

* * *

ARCHIE J. McGREGOR, M.D., fifty-seven, Brighton physician, died March 24, 1962.

A native of Detroit, Doctor McGregor received his medical degree from Wayne State University College of Medicine in 1931 and interned at Receiving Hospital.

In 1936, he began general practice in Perry, Michigan, at the same time serving as resident surgeon at Sparrow Hospital, Lansing. He became associated with Dr. Horace P. Mellus in the operation of Brighton's Mellus Hospital in 1937 and took over full operation of the hospital in 1939. In 1958, he sold his interest in the hospital and went into practice with his brother, Dr. Donald McGregor.

Memberships included Phi Rho Sigma and the American Academy of General Practice.

* * *

JAMES W. SINCLAIR, M.D., fifty-five, Detroit practitioner for 15 years, died February 26, 1962.

A native of Ontario, Dr. Sinclair graduated from the University of Toronto Medical School in 1933 and practiced in Texas until he came to Detroit in 1947. He was on the staffs of Saratoga General and Deaconess Hospitals.

He was a member of the American Academy of General Practice and an active member of the Michigan State Medical Society.

A. B. SMITH, M.D., seventy-seven, Grand Rapids physician who served as personal physician to the late Senator Arthur Vandenberg, died March 24, 1962.

A 1909 graduate of the University of Michigan Medical School, Dr. Smith was a lieutenant in the Army Medical Corps in World War I. He was a staff member for 50 years on the staffs of Butterworth, Blodgett Memorial, and St. Mary's Hospitals in Grand Rapids.

Dr. Smith was a past president of the Kent County Medical Society and had been a member of the MSMS House of Delegates for eight years.

Heart Beats

Eye Grounds in Hypertension

(Continued from Page 648)

and script was prepared for the American Heart Association by Albert A. Brust, M.D., American Medical Research Foundation, Dayton, Ohio.

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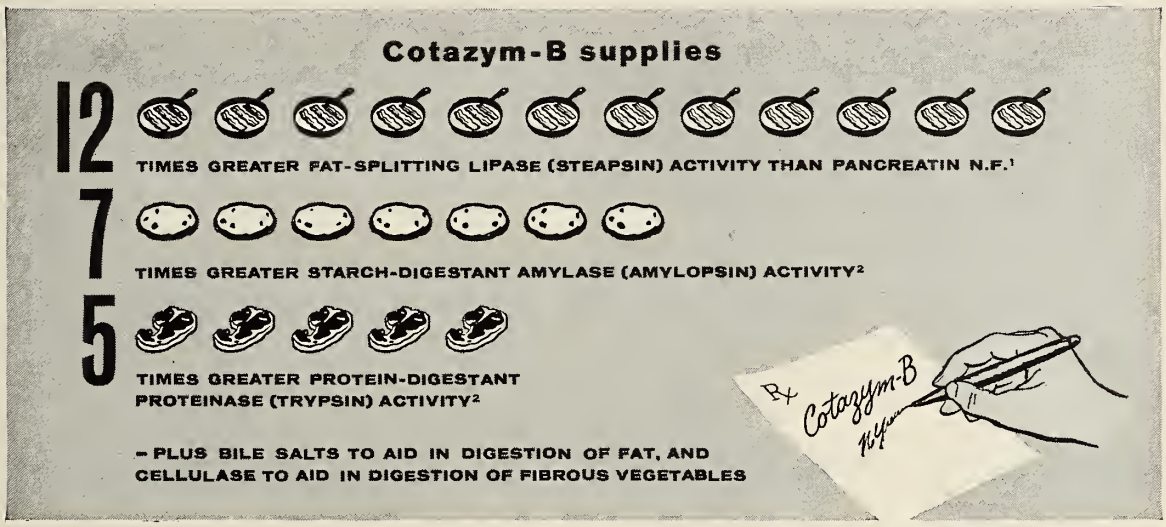
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Raymond A. Sokolov, M.D., Nikolai Rachmaninoff, M.D. and **Henry D. Kaine, M.D.,** Detroit, "Allergic Granulomatosis," *The American Journal of Medicine,* January, 1962.

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William P. Haney, M.D. and **Richard E. Preston, M.D.,** Ann Arbor, "Ocular Complications of Carotid Arteriography in Carotid Occlusive Disease," *Archives of Ophthalmology,* February, 1962.

Carey P. McCord, M.D., Ann Arbor, "Tripoli and Tripolite," *Industrial Medicine and Surgery,* March, 1962.

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Charles F. Whitten, M.D., Detroit, "Studies on Serum Haptoglobin," *The New England Journal of Medicine,* March 15, 1962.

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James R. Glessner, M.D., Grand Rapids, "Focal Defect of the Proximal Femur in Children," *Connecticut Medicine,* March, 1962.

Charles S. Stevenson, M.D., Osborne A. Brines, M.D., Charles R. Harmison, Ph.D. and **Karen J. Anderson,** Detroit, "Changing Picture of Cervical Carcinoma," *Journal of American Medical Association,* March 24, 1962.

James G. Miller, M.D., Ph.D., Ann Arbor, "Objective Measurements of the Effects of Drugs on Driver Behavior," *Journal of American Medical Association,* March 24, 1962.

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TREATMENT OF DIABETES

Because of its prevalence and chronicity, diabetes mellitus should be the continuing concern of all physicians, regardless of their type of practice. An essential part of treating the condition is teaching the patient how to live with it.

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8. Care of the feet
9. What to do in case of acute complications

This guide is not only of value in the initial education of a new diabetic patient, but can also be most helpful to both patient and physician in the subsequent years of management.

Additional information concerning teaching of diabetes control in hospitals may be obtained by writing to the American Diabetes Association, Inc., 1 East 45th Street, New York 17, N. Y.

The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

THE GROWTH OF SELF-INSIGHT. The Franklin Memorial Lectures. Volume X. Edited by John M. Dorsey, Holder of the Leo M. Franklin Memorial Chair in Human Relations at Wayne State University for the year 1959-1960. Detroit: Wayne State University Press, 1962. Price, $5.00.

This book is the tenth presentation of the Leo M. Franklin Memorial Chair in Human Relations at Wayne State University. Dr. Dorsey, in presenting his lecture, has made a tremendous study in human relations and has invited others to join with him in tributes which taken together, make this tribute to Dr. Franklin. Bernard Mayo, Ph.D., has been Professor of American History at the University of Virginia for over twenty years. He has chosen the study of *Thomas Jefferson's Faith in Human Integrity;* Wilbert Snow, LL.D., LITT.D., "Poet of the Maine Coast" the study of *Individuality in the Work of Ralph Waldo Emerson;* Milton Rosenbaum, M.D., Professor and Chairman of the Department of Psychiatry, Albert Einstein College of Medicine, discusses *The Whole Individual: A Health View;* Harold A. Basilius, M.D., Professor of German at Wayne State University, discusses his conception of *Goethe's Conception of Individuality and Personality;* Dr. Dorsey's own contribution is *The Growth Of Self Insight.* It is a most interesting but a profound and psychiatric study. This book published by Wayne State University completes the tribute of the tenth memorial to Leo M. Franklin. Dr. Dorsey has again given us an insight into his keen penetration and power of expression.

BOOKS RECEIVED

MIRAGE OF HEALTH Utopias, Progress, and Biological Change. By Rene Dubos. Anchor Books. Garden City, New York: Doubleday & Company, Inc., 1961 (no prive given).

MICHIGAN NURSING FACILITIES AND THEIR PATIENTS. Bureau of Health Economics Research Series No. 8. A Source-Book of State and County Data. By Henton E. Winter. Ann Arbor: School of Public Health, The University of Michigan, 1960. (no price given)

INSTRUCTIONAL COURSE LECTURES. Volume XVIII. The American Academy of Orthopaedic Surgeons. Editor: Fred C. Reynolds, M.D., St. Louis, Missouri. Illustrated. St. Louis: The C. V. Mosby Company, 1961. Price, $17.00.

CHILDBIRTH WITH HYPNOSIS. By William S. Kroger, M.D. Edited by Jules Steinberg. Garden City, New York: Doubleday & Company, Inc., 1961. Price, $3.95.

KRANZ MANUAL OF KINESIOLOGY. By Clem W. Thompson, Ph.D., F.A.C.S.M., Professor of Health and Physical Education, Mankato State College, Mankato, Minn.; formerly of Boston University, Boston, Mass. Fourth edition. St. Louis: The C. V. Mosby Company, 1961. Price, $3.75.



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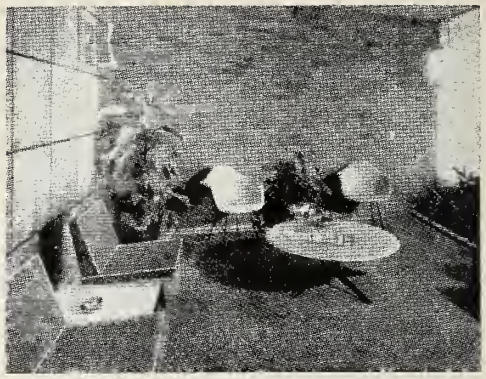
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THE OPERATIONS FOR INGUINAL HERNIA. By Mark M. Ravitch, M.D., Associate Professor of Surgery, The Johns Hopkins University School of Medicine; Surgeon in Chief, The Baltimore City Hospitals and James M. Hitzrot, II, M.D., Resident in Orthopedic Surgery, The Johns Hopkins Hospital. Illustrated. Four figures in full color. St. Louis: The C. V. Mosby Company, 1960. Price, $4.00.

RESUSCITATION OF THE NEWBORN INFANT. Principles and Practice. Edited by Harold Abramson, M.D., Professor of Clinical Pediatrics, New York Medical College, New York, N.Y.; Director of Maternal and Child Health Program, New York Medical College-Metropolitan Medical Center, New York, N.Y.; Attending Pediatrician, Flower and Fifth Avenue Hospitals, New York, N.Y.; Visiting Pediatrician, Metropolitan Hospital, New York, N.Y.; Chief, Communicable Disease Service, Metropolitan Hospital, New York, N.Y.; formerly Epidemiologist, Bureau of Preventable Diseases, New York City Department of Health. Illustrated. St. Louis: The C. V. Mosby Company, 1960. Price, $10.00.

HANDBOOK OF PEDIATRICS. By Henry K. Silver, M.D., Professor of Pediatrics, University of Colorado School of Medicine, Denver, Colorado. C. Henry Kempe, M.D., Professor of Pediatrics and Head, Department of Pediatrics, University of Colorado School of Medicine, Denver, Colorado. Henry B. Bruyn, M.D., Associate Professor of Pediatrics and Medicine, University of California School of Medicine, San Francisco, California, Assistant Clinical Professor of Pediatrics, Stanford University School of Medicine, Stanford, California, Director of Student Health, University of California, Berkeley, California. Fourth edition. Los Altos, California: Lange Medical Publications, 1961. Price, $3.50.

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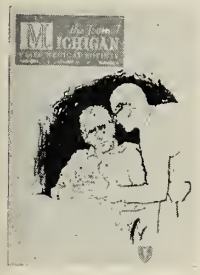
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Each year, the June issue of The Journal MSMS focuses attention on Michigan Medical Service (Blue Shield). The cover sets the tempo with its comment that 1962 is "The Time of Change and Challenge for Blue Shield."

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Secretary

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Secretary (Oto.)
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Co-Chairman (Ophth.)

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Chairman
Bernard H. Siebers, M.D.....Grand Rapids
Secretary

Public Health and Preventive Medicine

C. E. Reddick, M.D.....Bay City
Chairman
A. E. Heustis, M.D.....Lansing
Vice Chairman
G. Frederick Moench, M.C.....Midland
Secretary

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W. G. Belanger, M.D.....Detroit
Chairman (Rad.)
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Vice Chairman (Anesthesiology)
C. Allen Payne, M.D.....Grand Rapids
Secretary (Pathology)

Surgery

Philip J. Huber, M.D.....Detroit
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Secretary

Urology

Jack Lapides, M.D.....Ann Arbor
Chairman
Murray S. Mahlin, M.D.....Detroit
Secretary

DELEGATES TO A. M. A.

Delegates

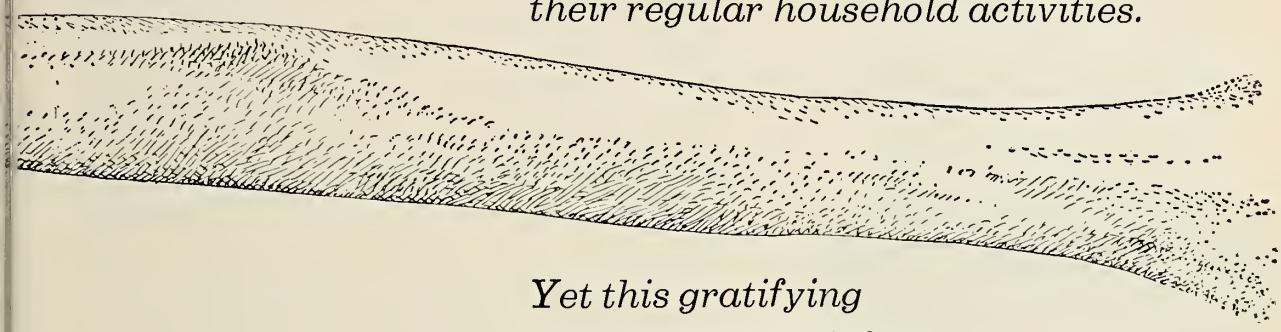
	Term Expires
Wm. Bromme, M.D., Detroit	1962
R. L. Novy, M.D., Detroit	1962
G. W. Slagle, M.D., Battle Creek	1962
J. R. Heidenreich, M.D., Daggett	1963
W. A. Hyland, M.D., *Chairman*, Grand Rapids	1963
O. J. Johnson, M.D., Bay City	1963
L. R. Leader, M.D., Detroit	1963

Alternates

	Term Expires
C. I. Owen, M.D., Detroit	1962
R. E. Rice, M.D., Greenville	1962
D. N. Sweeny, Jr., M.D., Detroit	1962
G. B. Saltonstall, M.D., Charlevoix	1963
J. M. Wellman, M.D., Lansing	1963
Sidney Adler, M.D., Detroit	1963
B. M. Harris, M.D., Ypsilanti	1963

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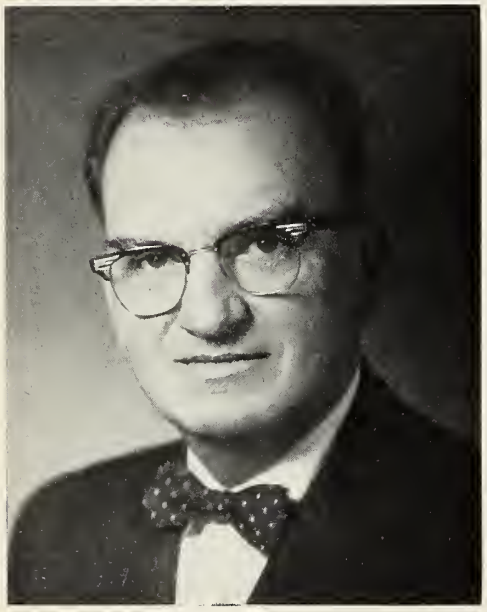
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President's Page

PERSONAL AND PUBLIC HEALTH



President
Michigan State Medical Society

Private health agencies and associated medical specialty groups deserve wide recognition for their outstanding contributions to progress in personal and public health. The history is a glorious one in Michigan. The public generally and the victims of tuberculosis, heart disease, poliomyelitis, cancer, crippling, mental disorders and many other ailments, have benefited.

As with everything else, there is another side to this picture which, minor as it may appear to be, should not be overlooked. Those of us in the Michigan State Medical Society who are charged with looking at the whole personal and public health picture sometimes become concerned about the possible end results of diligence by groups having particular interests. Well-meaning, well-trained specialists and lay persons with specific health interests frequently seek official regulations or even laws to operate to the benefit of people suffering from one malady or another. The past few sessions of the legislature have seen bills concerning cancer quackery control, phenylketonuria testing, as well as bills for hospital licensing, stricter standards for blood alcohol determinations, measures to permit the easier commitment of the mentally disturbed, etc., etc., to mention but a few. Too, we are all familiar with efforts to get regulations requiring the reporting of diseases that are not felt to be communicable or contagious. In each case, some well-intentioned individual or organization is trying to protect or improve health.

Let's take the cancer quackery bill as a case in point. Cancer quackery is not a major problem in Michigan. This bill, if passed, would have granted to the state health commissioner extraordinary powers to establish rules and regulations, subpoena witnesses, examine and control therapeutic and other research drugs, set up techniques for reporting the occurrence of the disease as well as method of treatment thereof, and so on.

Were this same type of legislation enacted by all the groups having a particular subject at interest chaos would be inevitable and the power of a future state health commissioner could be unbearable. Especially if he were incompetent or not aware of the mores of private practice.

Another case in point: This year the legislature was invited to go farther into the practice of medicine via a phenylketonuria testing law which, if passed, might have effected beneficially some 15 infants annually. What if every group interested in other diseases with similar or even more productive tests or checks succeeded in cementing such procedures into state law? I repeat chaos could result.

(Turn to Page 678)

Mark Your Calendar Now For '62 Annual Session



The Program Committee for the 1962 Annual Session, which will be held in Detroit September 26, 27, 28, is off to a fast start this year with Scott T. Harris, M.D., of Ypsilanti, as Chairman. The Committee held its first meeting during the winter and now is busy finalizing some of the early ideas. The work of the Committee will be reported regularly in the MSMS JOURNAL.

"Every MSMS member is urged now to mark his calendar for the September dates so he will be able to participate with all of us," stresses the Chairman. Every effort will be made to surpass the 1960 registration figures when the Annual Session was last held in Detroit.

Doctor Harris reports that the following Assembly Officers have been chosen:

First Assembly
Chairman: Howard Robinson, M.D., Detroit
Secretary: John D. Littig, M.D., Kalamazoo
Second Assembly
Chairman: Jack Lapides, M.D., Ann Arbor
Secretary: Reinard P. Nanzig, M.D., Grand Rapids
Third Assembly
Chairman: Donald S. Bolstad, M.D., Detroit
Secretary: Robert J. Crossen, M.D., Detroit
Fourth Assembly
Chairman: Philip J. Huber, M.D., Royal Oak
Secretary: Martin F. Bruton, M.D., Detroit
Fifth Assembly
Chairman: George H. Reye, M.D., Flint
Secretary: Harold Plotnick, M.D., Flint

MSMS Members Express Social Security Views

Results of the MSMS Questionnaire to poll the opinions of the members on social security for physicians were revealed to The Council at its April meeting. The results were explained by J. J. Lightbody, M.D., Speaker of the House of Delegates. The 1961 House had authorized such a study and to make the information available to the MSMS delegates to the AMA.

Following are excerpts from the mimeographed report developed by Prof. David R. Krathwohl, a research specialist, at Michigan State University:

A questionnaire was prepared requesting the information indicated, and in addition requesting the respondent's opinion on inclusion in the Social Security Program on a voluntary as well as a mandatory basis. The former basis is available only to ministers at the present time, but presumably physicians might also become an exception since there is a precedent.

Questionnaires received within a period of 9½ weeks after their mailing were included in the final tabulation. From the total membership of 6775 members, usable returns were received from 5520 members or 81.5 per cent of the membership. Since this was an anonymous poll with no follow-up,

this is a remarkably high percentage of return. Even with follow-up requests, it is not unusual to have only about two-thirds of the mailing returned.

Tabulation of the results for the membership as a whole indicated a very high proportion of the membership (better than 8 out of 10) in favor of voluntary participation in Social Security, and a high proportion (about 7 out of 10) against making participation compulsory. In neither instance was more than one out of ten undecided.

The exact questions and tabulations for these two questions follow:

Are you in favor of permitting doctors of medicine in private practice to have the opportunity to participate in Social Security if they so desire?

	Yes	*No*	*Undecided*	*No Answer Checked*
Number so responding	4658	591	228	43
Per cent so responding	84.4	10.7	4.1	.8

Do you favor making participation of all doctors of medicine in Social Security compulsory?

	Yes	*No*	*Undecided*	*No Answer Checked*
Number so responding	1035	3964	491	30
Per cent so responding	18.8	71.8	8.9	.5

The question Do you currently work for an organization through which you contribute to Social Security? showed that 1321 of the respondents, or 23.9 per cent currently do. The remainder (4199, or 76.1 per cent) are presumably in private practice or retired.

With reference to the matter of length of participation in Social Security, about two-thirds (67.3 per cent) had five years or less of participation. A number added a note to indicate that they had gathered some period of coverage with the Armed Services, but since these responses were volunteered, there is no indication of the extent to which this is common. The breakdown by years of participation was as follows:

	Less than one year	*1-5 years*	*5-9 years*	*10 or more*	*Could not estimate*
Number so responding	2092	1621	886	744	177
Per cent so responding	37.9	29.4	16.1	13.5	3.2

Of some interest was the question of the relation between a person's current participation in Social Security and his opinions on the questions of general participation. A statistically significant difference in opinion exists between those who are and those who are not currently contributing to Social Security. Those who are currently contributing are somewhat more favorable to voluntary participation. The data for compulsory participation indicate that those currently contributing to Social Security are slightly more against compulsory participation than those not currently contributing by a small but statistically significant margin. If one considers the two questions together, and assumes that persons most favorable to Social Security would hold that it should be compulsory, one finds that the two questions contradict one another. Apparently this assumption is not a tenable one, as one might expect.

Also of interest was the question of the relation of length of participation in Social Security to the opinions requested. The data on voluntary participation indicate that the longer the individual has participated the more favorable he is toward voluntary participation. The data on compulsory participation indicate that with the exception of those who have less than a year of participation, the opinion runs about uniformly against compulsory participation regardless of length of participation in the program. The difference between the opinions of those with a year or less, and those with a year or more parallels the findings noted in the previous paragraph, but is much larger in size. A quarter of those with less than a year of participation are in favor of compulsory participation in contrast to the 13-15 per cent of those who have been in the program over a year.

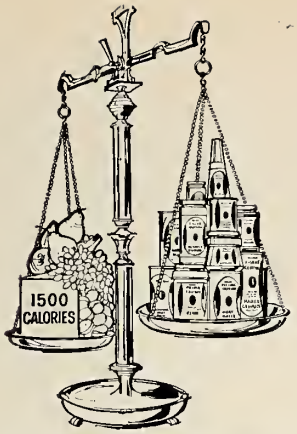
Finally, the question of the relation of opinion on participation to age of the respondent was examined. The data indicate that there is very little difference in opinion on the matter of voluntary participation among the different age groups. There is a sharp and statistically significant difference in opinion toward compulsory participation. While no age group favored compulsory participation, the proportion favoring compulsory participation increased significantly up to the "65 and over" age bracket, reaching a high of just over a quarter of the respondents. By contrast, only 7 per cent of those in the youngest age group favored compulsory participation. Perhaps these responses indicate the increasing concern about adequately providing for economic security which is felt by the established physician as retirement age approaches, and low concern about such provisions, especially in contrast to other current economic pressures, which is felt by the physician who is just beginning his practice.

It is perhaps of interest to note that most (58 per cent) of the respondents were in the 35-54 age brackets, slightly under a third being 35.44. Only 11 per cent were in the 25-34 age bracket.

Summary—The questionnaire to determine opinion of the membership of MSMS toward Social Security was completed and returned by over four-fifths of the members. By a considerable majority the membership endorsed voluntary participation in Social Security and voted against compulsory participation, though the extent of the majority was somewhat smaller against compulsory participation than for voluntary participation. These majorities were found regardless of whether or not the respondent was currently contributing to Social Security, whether he was old or young, or whether he had hardly participated in Social Security at all or had participated for a considerable period of time. There were slight tendencies toward greater favorableness toward voluntary participation if the individual was currently contributing to Social Security, or if he had contributed for a period of time. There was no relation between favorableness toward voluntary participation and age. Those who were not currently contributing to Social Security, or who had had less than a year of participation in the program were less against compulsory participation, that is more favorable to compulsory participation than those who were currently participating or who had been in the program over a year. Those approaching retirement age were also more favorable to compulsory participation than those in the youngest age bracket.

1962 MCI Echoes

"It was a privilege for me to appear on the program of the Michigan Clinical Institute, and I want to express my admiration for the efficient way in which the meeting was conducted."—Raymond M. Rice, M.D., Eli Lilly & Company (*Guest Essayist*).



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	Quantity	Figure Control Calories	"Regular" Food Calories
Apple-Grape Drink	½ cup	20	52
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Braised Beef and Vegetables	6½ oz.	184	380
Meat Balls in Brown Gravy	3½ oz.	84	280
Chopped Chicken Livers	1 oz.	31	100
Chicken a la King	3 oz.	72	230
French Style Dressing	1 tbsp.	10½	60
Brown Gravy	1 tbsp.	7	21

	Quantity	Figure Control Calories	"Regular" Food Calories
Applesauce	½ cup	48	90
Fruit Cocktail	½ cup	44	90
Cherry Pie Filling	1 oz.	20	60
Chocolate Topping	1 tbsp.	8	63
Preserves (Peach, Strawberry)	1 tbsp.	9	55
"Maplette" Syrup	1 tbsp.	9	55
Liquid or Powder Sweetener	(to equal 1 tbsp. of sugar)	0	16



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Michigan Medical Meetings

Coller-Penberthy Clinic, Traverse City, August 2-3.

Michigan State Medical Assistants Society, Statler Hilton Hotel, Detroit, September 27.

Michigan State Medical Society, Sheraton-Cadillac Hotel, House of Delegates, September 23-24-25; Annual Scientific Meetings, September 26-27-28.

Woman's Auxiliary to Michigan State Medical Society, Sheraton-Cadillac Hotel, Detroit, September 25-26-27.

Welcome, New Members

The following new members are welcomed into the Michigan State Medical Society. Their specialties were not indicated in all cases.

Julio B. Acosta, M.D.
25210 Grand River
Detroit 4, Michigan
(Obstetrics & Gynecology)

David C. Angell, M.D.
2603 Pittsfield Blvd.
Ann Arbor, Michigan
(Pathology—Resident)

Miguel A. Arellano, M.D.
Detroit Memorial Hospital
Detroit 26, Michigan
(Internal Medicine)

Russell A. Barnhardt, M.D.
Ford Motor Company
Highland Park 3, Michigan
(Industrial Practice)

Charles Berman, M.D.
Highland Park General Hospital
Highland Park 3, Michigan
(Anesthesiology)

Eugene H. Boyle, M.D.
15152 Gratiot Ave.
Detroit 5, Michigan

Russell O. Briere, M.D.
2816 Brandywine Dr.
Ann Arbor, Michigan
(Pathology—Resident)

Bruno Burgess, M.D.
3335 Harvard
Royal Oak, Michigan
(Internal Medicine)

R. Paul Clodfelder, M.D.
347 Bostwick Ave., N.E.
Grand Rapids 3, Michigan

John W. Conwell, M.D.
University Hospital
Ann Arbor, Michigan
(Neurology)

Gunter Corssen, M.D.
1218 City Dr.
Ann Arbor, Michigan
(Anesthesiology)

Gianfranco Dal Santo, M.D.
1800 Tuxedo
Detroit 6, Michigan
(Anesthesiology)

Juan V. Fayos, M.D.
University Hospital
Ann Arbor, Michigan
(Roentgenology & Radiology)

Gene T. Fries, M.D.
3070 Golfide Dr.
Ypsilanti, Michigan
(Pathology)

Richard W. Gerstner, M.D.
212 Bronson Medical Center
Kalamazoo, Michigan

William P. Haney, M.D.
1112 Maiden Lane Ct., Apt. 109
Ann Arbor, Michigan
(Ophthalmology)

Thomas P. Haynie, M.D.
University Hospital
Ann Arbor, Michigan

Charles Hirschler, M.D.
28400 Plymouth
Livonia, Michigan

John L. Kihm, M.D.
1223 S. Park St.
Kalamazoo, Michigan

Joseph E. Kincaid, M.D.
420 John St.
Kalamazoo, Michigan

Thomas Klein, M.D.
623 Ottillia, S.E.
Grand Rapids 7, Michigan
(Obstetrics & Gynecology)

Michel M. Laham, M.D.
2929 Fort St.
Wyandotte, Michigan
(Obstetrics & Gynecology)

David W. Learned, M.D.
2170 Cram Place
Ann Arbor, Michigan
(Anesthesiology)

Benedict B. Lenhart, M.D.
567 Hunt Rd.
Ypsilanti, Michigan

Jack O. McFarland, M.D.
430 Morris Ave., S.E.
Grand Rapids 3, Michigan
(General Surgery)

Daniel B. Parsons, M.D.
University Hospital
Ann Arbor, Michigan
(Pathology—Resident)

Burton L. Perry, M.D.
2820 Beacon Hill
Ann Arbor, Michigan
(Pediatrics—Resident)

Raymond Read, M.D.
Wayne State University
Detroit 7, Michigan

Thomas J. Reigel, Jr., M.D.
1631 Gull Rd.
Kalamazoo, Michigan

Donald L. Schaefer, M.D.
201 East Liberty
Ann Arbor, Michigan
(Psychiatry)

Elmer J. Seim, M.D.
Grace Hospital
Detroit 1, Michigan
(Anesthesiology)

Ara A. Sheperdigian, M.D.
9841 Hamburg Rd.
Brighton, Michigan
(Pathology—Resident)

Roland R. Springgate, M.D.
1631 Gull Rd.
Kalamazoo, Michigan

James P. Strong, M.D.
Ontonagon, Michigan

Elmer Z. Tomboly, M.D.
Pontiac State Hospital
Pontiac, Michigan
(Psychiatry)

Vernon Urich, M.D.
1315 Mott Foundation Bldg.
Flint 2, Michigan
(Urology)

L. William Vergith, M.D.
2318 Welch Blvd.
Flint, Michigan
(Roentgenology)

PRESIDENT'S PAGE

(Continued from Page 674)

We frequently hear a cry from folks interested in mental health for more stringent and protective rules and regulations regarding the commitment of mental patients. This is one of the gray areas. It is the belief of many interested in the whole picture that it would be better if a few unstable individuals were to go free than to give governmental agencies the power to incarcerate political enemies.

Your Michigan State Medical Society has been working to promote a hospital licensing bill which would not, in effect, introduce a third party who might attempt to completely control medical care in hospitals. We know that laws to regulate or control medical care in hospitals, once on the books, are easily extended to medical care outside of hospitals as well as inside. Sustaining the principle of the privacy of patients' records has been an objective of the medical society as a major safeguard of the public in hospital licensing legislation.

We salute the private health agency and the medical specialist, but let's be quite certain that the great things accomplished by their diligence are not offset by the loss of our patients' freedom and of the freedom associated with the practice of medicine as we know it.

The American Economic Scene At Mid-Century

By Clyde T. Hardwick, Ph.D., *Economic Consultant to MSMS*

(This is the first of several installments of a talk presented by Dr. Hardwick at the 1962 County Secretaries-Public Relations Seminar in East Lansing)

SOCIO ECONOMICS 683



A Preliminary Setting

"No man is an island." This phrase of John Dunne can mean several things to different people. For our usage today, let us interpret it to mean that no man and even no group of men can long exist alone and away from his social, political and economic environment. As Aristotle said about 2500 years ago—man is a social being. Thus, professional groupings, such as the Michigan State Medical Society, in addition to their specific professional undertakings, are ultimately involved in a socio-economic relationship with their fellow men. Of course, this observation comes as no surprise to most of you. Your leaders and staff, as well as the House of Delegates, have often studied and acted on current social, economic and political questions. In 1961, at Grand Rapids, the House of Delegates authorized the establishment of a Socio-Economic Department in which Mr. Richard Campau is Director of Research and your speaker is Consulting Economist.

Today it is my privilege and honor to share some ideas with you concerning the frame of reference and some potential activities facing this new department of the Michigan State Medical Society.

To begin with, allow me to revert to my natural role as a professor and spend a short time explaining the evolutionary events contributing to modern economic thought. The central issue in the world of economics concerns a choice between limited means in reaching a range of unlimited ends. An example is the choice the consumer faces in satisfying a long list of almost unlimited wants with the always limited resources, both private and public. Such has been the history of mankind, as individuals and groups; we acquire tastes, plus natural needs, for many items of food, clothing, shelter, recreation, leisure, transportation and health. To satisfy these wants we work as producers and professionals to acquire money to spend in some scale of preference. We can never afford to buy the best of everything being offered for sale.

In a more sophisticated statement, the economist studies, researches and writes about such topics as:

1. Production (wealth getting)
2. Consumption (standard of living) or (wealth spending)
3. Exchange System
4. Market Place
5. Labor-Management Relations
6. Role of Government in Business

Today our attention will be focused on the latter topic—the role of government in the economic sphere of our society.

In a general way, the leaders and citizens of all societies have been wrestling with relationship of private rights and public rights in the socio-economic sphere. In other words, how we can preserve indi-

vidual decisions within a political frame of reference has been bothering all modern societies. To get a better understanding of the issues and the suggested solutions, let us review some of the major political-economic proposals of modern societies.

Development of Economic Thought

Since the earliest days, every society has spent a good deal of time producing material things needed for human survival. To describe, analyze and propose suggestions about production and consumption is the work of the economist. Long before economists were recognized, many thinkers and writers treated the subject of economics. Beginning about 300 B.C., the Greeks treated some economic matter in their general writings. Plato carefully discussed the need and usefulness for "division of labor" and advantages of specialization. A little later Aristotle probed deeper into economic activity and expressed himself concerning wealth which he classified as genuine or limited and unnatural acquisitions which might be unlimited. Money was merely arbitrary, not a natural form of wealth but a medium of exchanging wealth. Then in the middle of the 13th century an Italian Churchman, St. Thomas Aquinas, in his analysis of Aristotle, became indirectly involved in economic matters. Of course his analysis was pursued within a frame of reference, i.e., ethical and moral principles. St. Thomas Aquinas took the stand that wealth and private property were not either good or bad in themselves, but depended upon the *usage*. In general, property was a trust placed in private hands for social good. Also, Thomas Aquinas spoke out on just price, just wages, and the sin of usury according to the principles of justice.

At the end of the 16th century, a school of thought grew up known as the *Mercantilist*. In England, Thomas Mann presented a plan to make England wealthy and powerful. The government would take the lead to encourage people to produce more than they could consume. Then trade this surplus with the rest of the world, but always export more than they would import and the difference was an addition to home wealth. Mercantilism was a practical plan in which government directed the social economy in the interest of acquiring wealth as a means of creating a powerful country. In 1776, Adam Smith in his book called "An Inquiry into the Nature and Causes of Wealth of Nations" took serious issue with the mercantilist. He presented the argument that labor produces value in *exchange* as well as *use*. But he also strongly argued in favor of the freedom of individuals, who when left alone and following selfish inclinations would work harder and produce more wealth than if government was the manager of the economic life of others. Thus, he suggested that an invisible hand of the market place would bring supply and demand together at competitive price. In all events, government should stay out of business. Of course, he admitted government should carry on a few essential activities, including these three:

"I. The duty of protecting the society from violence and invasion of other independent societies (national defense).

"II. The duty of protecting, as far as possible, every member of the society from injustice or oppression of every other member of it, or the duty of establishing an exact administration of justice (judicial system).

"III. The duty of erecting and maintaining certain public works and certain public institutions which it can never be for the interest of any individual or small number of individuals to erect and maintain because the profit can never repay the expense to any individual or small number of individuals though it may frequently do much more than repay it to a great society."

This was the stand of the founder of classical economics as a social discipline—Adam Smith. Free, independent men would make a country strong and wealthy.

Health Insurance Covers Two of Three Workers

With 40 million U. S. workers and their 63 million dependents now covered by health insurance through employee plans, the cost of medical care has become part of the cost of doing business for two out of three employers.

So points out the Health Insurance Institute in an analysis of the progress of health insurance as a "fringe" benefit.

A striking contribution of over $4 billion annually is made through employee-benefit plans for the financing of health care. Despite competing calls on available resources, both labor and management have signified even higher outlays may be excepted as expanded health cost coverage remains a major item on the bargaining table.

By the end of 1960, 69 per cent of the employed wage and salary force in the U. S. had some form of health insurance through their place of employment, according to estimates of the Social Security Administration.

In just six years, between the end of 1954 and the end of 1960, more than 28 million employees and their dependents were added to the rolls of employer-sponsored hospitalization plans, bringing to 103 million the total of those covered under such plans.

Joint contributions by employers and employees to defray health insurance premiums doubled between 1954 and 1960 from under $2 billion to over $4.2 billion annually.

The total package of "fringe" benefits for insurance and retirement represented costs to employers and

(Continued on Page 686)



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Posed by professional models.

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Health Insurance

(Continued from Page 684)

employees equal to $5.15 for each $100 in wages and salaries in 1960. Health insurance premiums accounted for 31.7 per cent of this cost.

Veterans May Be Covered By Social Security

It may be news to many physicians who served in the Armed Forces in World War II that they have credits toward Social Security for retirement benefits. According to information published by the U. S. Department of Health, Education and Welfare those who were on active duty in the Armed Forces of the United States between September 16, 1940, and December 31, 1956, are eligible for wage credits up to $160 a month computed on base pay.

The law states that minimum Social Security credits measured in quarters (3-month periods), in which wages of $50 or more are paid requires 6 quarters or 1½ years and a maximum of 40 quarters or 10 years. Retirement benefits may be claimed at age 62 for women, 65 for men or total disability at any age.

A point for physicians who are veterans to remember is that in the event of death, the widow is entitled to a single lump sum death payment and in addition may be eligible for survivor benefits after the age of 62 years. These benefits are not automatic. The widow must make application through the local Social Security office. Details may be obtained in a booklet, "Your Social Security," OASI-35.

Veterans should also know that widows of veterans are eligible under certain conditions for a widow's pension from the Federal government; to a local tax relief on homestead (property) taxes; and to a death benefit from the State of Michigan.—*Detroit Medical News*, April 2, 1962.

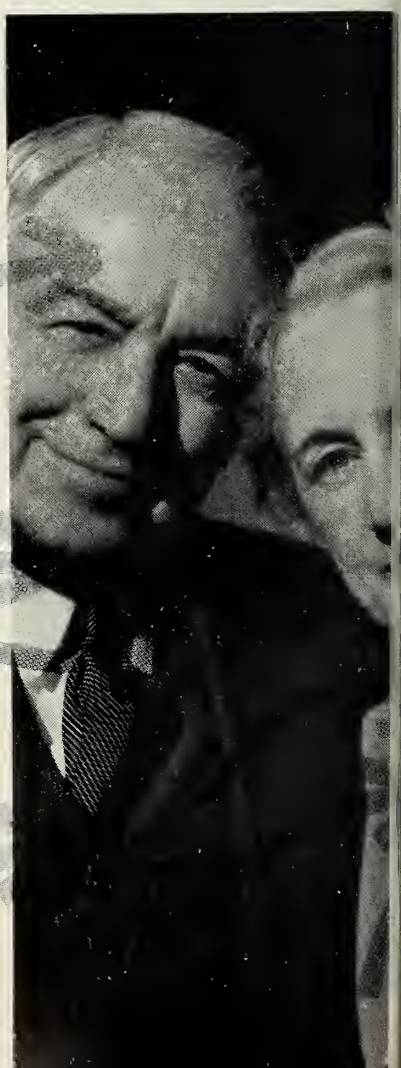
Studies Detroit Aged

Some interesting statistics were gathered recently in the Mack-Concord area of Detroit by Mrs. Lois Pettit, social worker for the Detroit Neighborhood Service Organization. She interviewed 63 persons from 56 to 91.

Among the figures she uncovered were these:

Nine of the 63 persons had had no contact with a

arlidin
increases blood flow to the brain in the "senility syndrome" associated with cerebrovascular insufficiency



physician for the past two years. One woman had never consulted a physician in her entire life.

Income for each of the 63 persons ranges from seven who had none to $269 a month. A 91-year-old man is still living on his savings but this will soon be reduced to less than $500 and he will become eligible for Old Age Assistance.

Thirty-one have an income of $59 a month or less. The average income for both men and women is $63.30 a month.

Seven persons said they had more income than was needed, 35 said they had just enough to get along and 21 said they could not make ends meet.

One man and four women out of the 63 are still employed. Eighteen would like some type of employment.

Seven of the 52 who own their own homes live alone. Each has a signal arrangement in conjunction with a neighbor in the event of an emergency.

More than half indicated they were available for leisure-time activities. The proportion of men in this carefree position was higher than for women. Seventeen out of the 63 persons said they did not know what to do with their leisure time.

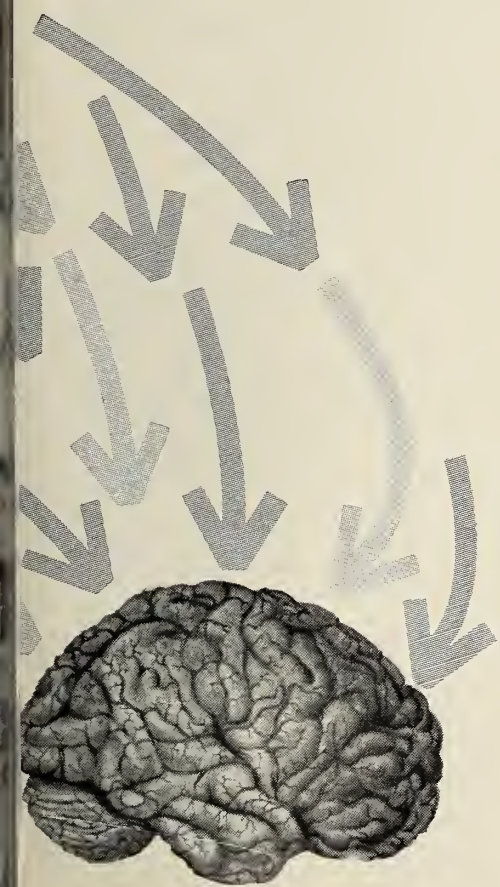
Those who live in hotel rooms have the greatest independence but also are the most lonely. Those participating in the "high rise" experiment miss their old neighborhoods and seem to have no place to go to find answers for a variety of problems.

Blue Shield Roles Grow

During 1961, Blue Shield Plans recorded an enrollment gain of more than 2,037,000 persons, the National Association announces. Total membership in the Blue Shield Plans located in North America reached 49,122,164 as of December 31, 1961, which represents an enrollment of 25 per cent of the total United States population, and just over 15 per cent of the total Canadian population.

Last year's payments to the medical profession in behalf of members total more than $816,000,000 and represented nearly 89 per cent of the total income of all Plans.

Blue Shield payments to doctors have gone from $165,000,000 in 1951 to the 1961 figure of over $816,012,000, proving the ability of these medical-surgical Plans to provide coverage that keeps pace with the dramatic advances in medical science.



Inadequate cerebral blood flow—often due to cerebral arteriosclerosis—may result in the "senility syndrome" with its pattern of mental confusion, memory lapses, depression, fatigue, apathy and behavior problems.[1-3]

43% increase in cerebral blood flow with Arlidin[4]

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Winsor and associates[3] found Arlidin "of particular value clinically in relieving some of the symptoms of cerebral vascular insufficiency (vertigo, lightheadedness, mental confusion, diplopia)."

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NOTE—before prescribing ARLIDIN the physician should be thoroughly familiar with general directions for its use, indications, dosage, possible side effects and contraindications, etc. Write for complete detailed literature.

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Say you saw it in the Journal of the Michigan State Medical Society

Evolution of the Silicone Rubber Intestinal Decompression Tube

Meyer O. Cantor, M.D.
Detroit, Michigan

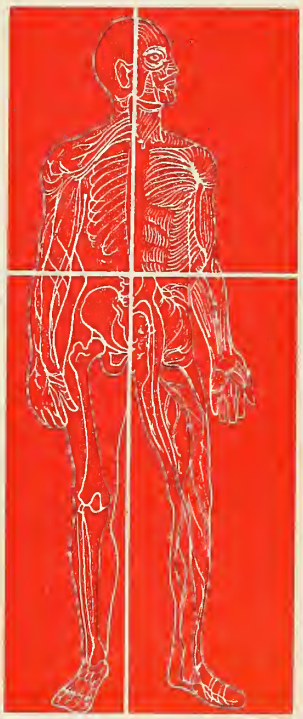
THE EVOLUTION of the silicone rubber intestinal decompression tube began with the desire to make intestinal intubation more comfortable for the patient.[1,2] Since its introduction in 1931, the entire emphasis in the use of the intestinal decompression tube has been directed toward increasing the percentage of successful intubations, making the tubes more efficient, studying the indications and contraindications for its use, and finally, methods of speeding up the process of intubation beyond the pylorus.

The comfort of the patient and the after-care of the tube by Central Supply was not even considered. With the passage of time, a voluminous literature accumulated upon intestinal intubation. Every conceivable facet of this problem was studied until at present very little remains to be said relative to the technique of intubation. It seemed only proper to devote some effort to making these tubes more comfortable for the patient to tolerate and easier for Central Supply to clean and service.

With these latter considerations in mind, we siliconized (Clay-Adams-Siliclad) the Cantor tube in an effort to increase patient comfort. Our concept was to apply a coating of an inert, non-irritating, non-allergic material to the Cantor tube to determine whether this would make these tubes better tolerated by the patient. The results of this study definitely proved that the application of silicone solution did make these tubes better tolerated by the patient and much easier to clean and service in Central Supply.

Because of the remarkably improved results obtained by siliconizing the Cantor tube, it seemed only reasonable to believe that a pure silicone rubber would be even better. The Dow-Corning Company agreed to manufacture such tubes for study and clinical testing. This report is concerned with the various steps in the final evolution of the ultimate silicone rubber intestinal decompression tube.

The difference between siliconized rubber intestinal decompression tubes and silicone rubber intestinal decompression tubes is marked. A siliconized intestinal decompression tube is a conventional rubber tube with carbon as its basic atom (C-C-C) which is coated with a silicone fluid (Clay-Adams Siliclad). A silicone rubber intestinal decompression tube contains no conventional rubber with carbon as its basic atom; instead it is an elastomeric compound comprising a silicone polymer (Si-O-Si-O) and a filler which is chemically bound





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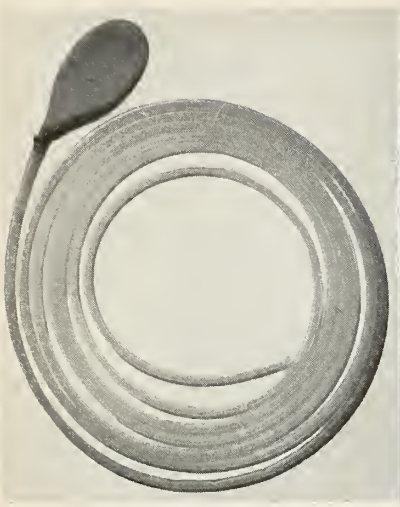


Fig. 1. Pure Silastic rubber Cantor tube.



Fig. 2. Note the thicker wall of tube 2. This is a cross section of tubes 1 and 2.



Fig. 3. Note complete absence of radiodensity. This tube is very difficult to see radiographically and cannot be seen fluoroscopically.

to the polymer. The medical tubes contain no plasticizers or any chemical that can injure the patient.

Many different kinds of silicone rubber are manufactured by the Dow-Corning Company and are called Silastic. The two main kinds used are made in different fashions. The type of Silastic rubber used for medical purposes, such as in the intestinal decompression tube, requires high temperature during vulcanization. This process converts the polymer into rubber. Most of the heat-vulcanizing Silastic used medically is made from three polymers: S-9711, S-2000, and X-30146. The differences between these three polymers consist in slight polymer and catalyst variations which were developed to aid in fabrication. All three types of Silastic rubber have been implanted in patients without producing any tissue reaction. In addition, they can all be autoclaved repeatedly without changing the rubber in any way.

In the manufacture of the Silastic rubber, the silicone polymers (Si-O-Si-O) are mixed with an extremely finely divided silica filler. This filler becomes chemically bound to the silicone polymer and gives it strength. The catalysts are then added so that the material can be molded. The catalysts are organic peroxides.

To change this putty-like material into rubber, a process of vulcanization is required. This is brought about by heating the putty-like mass to 260 degrees F. after which the Silastic is cured in an open oven at 480 degrees F. for sixteen hours. During the heating procedures, the organic peroxide catalysts are destroyed and its products driven off.

Of the three types of Silastic rubber used medically (S-9711, S-2000, and X-30146) the type used to make Cantor Silicone Intestinal Decompression tubes (X-30146) was introduced in 1959. This type of Silastic rubber uses a slightly altered polymer. It is the preferred material for use in intestinal tubes since it can be vulcanized without pressure and it can be stored for long periods of time with little hardening. Throughout this paper, this is the type of Silicone rubber referred to.

The first intestinal decompression tubes made of silicone rubber were clinically tested at Grace Hospital. These tubes were clear, thin-walled silicone rubber tubes (Fig. 1). Testing these tubes in six patients revealed very excellent properties and very poor ones. On the one hand, the tubes were well tolerated by the nasopharynx as shown by the minimal outpouring of mucous by the patient. The patient comfort was markedly improved because the tubes were soft and its surface smoother than conventional rubber. The tubes were non-irritating, non-allergic and abhesive. The quality of abhesiveness made it difficult or impossible for mucous and intestinal content to stick to its surface. The result was a comfortable, easily cleaned, intestinal tube which could be readily washed in soapy water and then autoclaved with the instruments.

The serious drawbacks to this tube were: (1) they

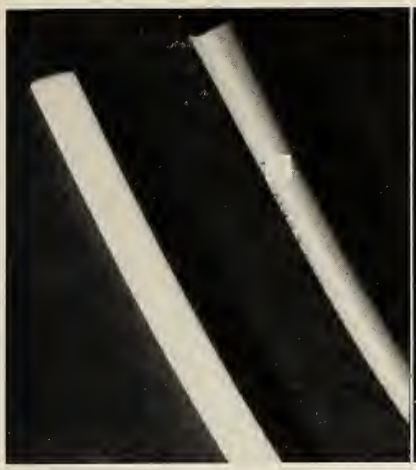


Fig. 4. Bismuth subcarbonate used as contrast medium in this tube. Tube 1 is regular rubber Cantor tube and tube 2 is bismuth subcarbonate impregnated Cantor silicone rubber tube.



Fig. 5a. Radiographic study of silicone rubber Cantor tube treated with bismuth subcarbonate as contrast medium. Note the degree of radiodensity.

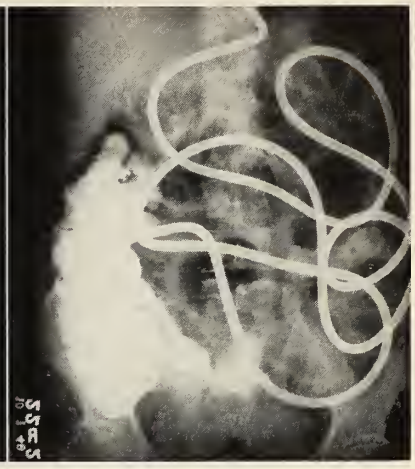


Fig. 5b. Regular rubber Cantor tube. Note difference in radiodensity as compared with Figure 5a.

were too thin walled and too soft, (2) they readily kinked, twisted and became obstructed by torsion at the points of union with the suction, (3) the application of 120 mg. of mercury suction caused the walls of the tube to collapse, (4) the tube was not radio-opaque, (5) it was difficult to see radiographically and impossible to see fluoroscopically, (6) it was impossible to calibrate the tube because the letters would not adhere to the surface of the silicone rubber. Because of this latter consideration, it was difficult to determine just how much tubing was down the gastrointestinal tract without measuring the amount of tube protruding from the nose. This was a time-consuming process and one which the residents found to be too annoying.

With the knowledge gained by the clinical experience with this tube, a second type of intestinal decompression tube (Fig. 2) was developed. This tube had a thicker wall and a 16 Fr. lumen with adequate holes for decompression at its distal end. The tube was made in clear amber silicone rubber. Testing of these tubes clinically added further to our knowledge in the use of this material.

These tubes were found to be excellent in many ways. They were highly elastic, resilient, resisted kinking and angulation. They were well tolerated by the patient, as shown by a minimal outpouring of mucus, and they were easy to clean and sterilize by autoclaving.

Certain drawbacks became evident. The first of these was the lack of radio-opacity. As a result, the tube was only faintly visible (Fig. 3) radiographically and invisible fluoroscopically. An additional drawback was the impossibility of keeping letters upon its surface. One could therefore not determine rapidly how much tubing was down the gastrointestinal tract. The balloon would not be cemented on to the tube because no cement would adhere to the silicone rubber tube. This necessitated that the balloon be tied to the tube with a 00 silk tie. The tie must be very tight because the balloon tended to slip off of the slippery silicone rubber tube.

To correct the drawbacks of this second tube, a third type of silicone rubber intestinal decompression tube was manufactured and clinically tested. This tube (Fig. 4) was milk white in color. The material used to make this tube radio-opaque was bismuth subcarbonate. Clinical testing with this tube revealed that the tube was admirably suitable for intestinal intubation with but few drawbacks. The tube was well tolerated, did not kink or angulate, was resilient and elastic and was easy to clean. The letters remained unaltered upon its surface so that one could rapidly determine just how much tubing was down the gastrointestinal tract. Although the tube was found to be radio-opaque radiographically, the sharpness of contrast was not as great as the conventional rubber tube (Fig. 5a and b). It was fairly satisfactory, however. The most serious drawback to the use of this tube was its discoloration after being down the gastrointestinal tract for several days. When withdrawn, the white tube had changed to a dirty brown color in that portion exposed to small bowel content. This made the tube esthetically unsuitable for re-use although the

physical properties of the tube were unimpaired. Inability to re-use a tube of this type, we considered as being too wasteful. For this reason, we decided to change the color of the tube to light green in an effort to avoid the brownish discoloration.

The fourth type of silicone rubber intestinal decompression tube was made like the third type, using bismuth subcarbonate as the contrast medium, except that the pigment used in the tube to color it was light green. This tube was found to be as satisfactory as the white tube in all respects as an instrument for intestinal decompression. This tube, however, was found to become a dirty grey color after being present in the gastrointestinal tract. We believed that this discoloration was probably the result of the action of hydrogen sulphide gas present in the bowel. Experimental study (Fig. 6) disclosed the reason for this color change. It was found that the hydrogen sulphide in the gastrointestinal tract combined with the bismuth subcarbonate used to make the tubes radio-opaque.

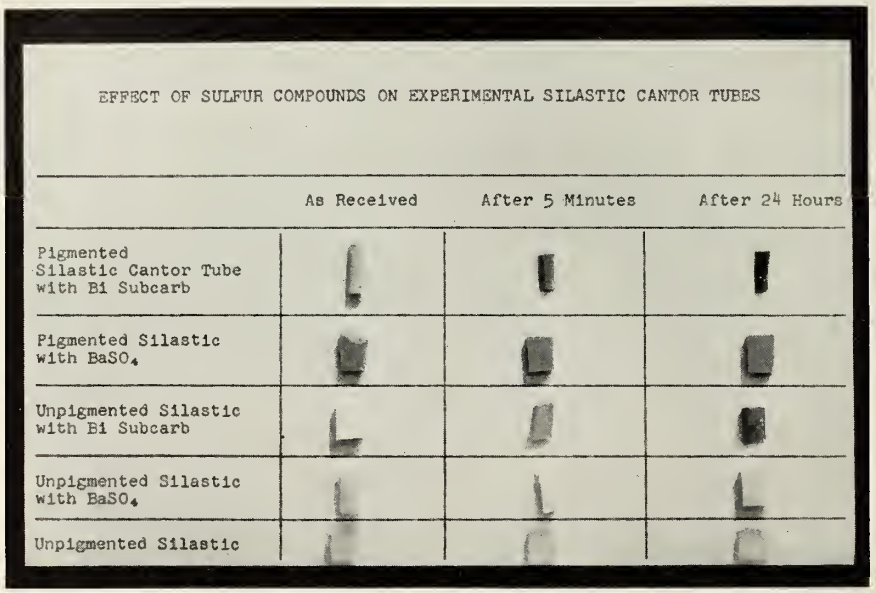


Fig. 6. Experimental study of sulfur compounds on silicone rubber Cantor tube segments.

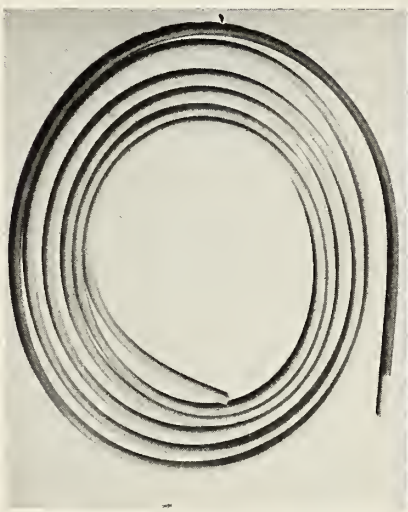


Fig. 7. Note discoloration of portion of tube which had been well down into the small bowel.



Fig. 8. Note sharpness of detail radiographically of barium sulphate impregnated silicone rubber Cantor tube.

This resulted in the formation of bismuth sulphide which is a dark brown color. This explained the brownish discoloration of the white intestinal decompression tube. The brownish bismuth sulphide in combination with the pale green in the fourth type of tube produced a dirty grey color (Fig. 7).

From these experiences, a fifth type of tube was developed. This tube was made an olive green color and was manufactured to correct all the drawbacks of the previous tubes. This tube was found to satisfy all the criteria necessary for a perfect decompression instrument. Barium sulphate in a 10 per cent concentration was used to make the tube radio-opaque. The result was a high degree of sharply defined radiopacity (Fig. 8). The tube is well visualized radiographically as well as fluoroscopically. Nine such tubes were used in a clinical study. Each tube was used eight or more times. They were found to retain their color under all conditions. This was found to be the solution to the problem of making a well-tolerated, easily cleaned, radio-opaque intestinal decompression tube. The tubes are almost indestructible. They may be repeatedly used and repeatedly autoclaved without impairing their physical properties or color in any way.

The only two problems that remain to be solved at present are:

1. The development of a cement to hold the balloon on the tube.

2. The development of a silicone rubber intestinal decompression tube balloon without increasing the cost to prohibitive levels.

Conclusions

After considerable experimentation and clinical testing, we believe the silicone rubber intestinal decompression tube to be markedly superior to the conventional type of rubber tube.

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26831 Woodward Avenue
Huntington Woods, Michigan

Military Service and Social Security Credit

Many of our doctors are not sure of their relation to social security and military service. Inquiry at the office shows that the military are entitled to social security benefits. Until the first of January 1956, a person is considered to have been earning 160 dollars a month and is entitled to those credits when he applies for social security. If a doctor is now on social security, it is very simple. He simply may check up his military dates and add to his present credits, those earned during the World War II and Korean War periods. Beginning in 1957, the government deducted the social security payments for those in the service and they are automatically covered and know it. Those in the service previously, who are not now under social security, will get credit when they apply for the amount of time they were in service and the amount they earned, according to the number of quarters which they served. There is a minimum of six quarters which must be served before they are eligible for benefits, and they must serve 40 quarters to qualify for full coverage.

Cervical Ribs in a Young Child With Neurovascular Compression and Electroencephalographic Manifestations

Samuel J. Nichamin, M.D.
Detroit, Michigan

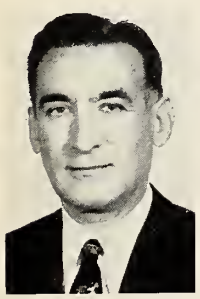
ALTHOUGH cervical ribs in children have been identified in a few reports during the past 50 years,[1-4] their occurrence with associated symptomatology is rarely mentioned in the literature. There is likewise no designation of this subject in most pediatric textbooks. The coterie of symptoms, known as the Thoracic Outlet Neurovascular Compression Syndrome, results from an abnormal relationship between the bony cervical rib and the scalenus anticus muscle, with encroachment and pressure effects on the roots of the brachial plexus and the subclavian artery. The condition is often symptomless; and, in children, the only evidence may be the presence of a tumor mass in the neck,[1,3] or the chance discovery of supernumerary ribs on a routine chest roentgenogram.

The rarity of this entity in early childhood is explainable on the basis of first, the delay in the ossification of the ribs, secondly, their incomplete growth, and, finally, the relatively elevated position of the shoulder girdle that completes its descent around the twentieth year.

The roentgenographic appearance of cervical ribs as mature bony structures in the neck is, for the most part, confined to adults, at an age when pressure symptoms first become evident. The predominance of cases of cervical rib compression in adults as compared to children does not preclude the possibility of a certain incidence of the condition in the younger age group. With the earlier onset of ossification and growth of cervical ribs in a child, spinal root pressure symptoms, as well as vascular disturbances, would become evident sooner, and closely simulate those observed in adults.

Cervical ribs are believed to occur in 1 per cent of the population;[7] and, being of congenital origin, are present to the same extent in children as in adults. The diagnosis of the characteristic cervical rib syndrome in the adult is readily made clinically, with confirmation by a roentgenogram of the cervical region. However, in childhood, the existence of cervical ribs are discovered, if at all, fortuitously.

Since symptoms of nerve root compression by cervical ribs can occur in young children as early as four years of age,[7] familiarity with their characteristic display is warranted. Southam and Bythell[2] found cervical ribs in nine out of 2000 roentgenograms of children. Of these, there were five cases with symptoms. There may be weakness or atrophy of the muscles of the hand and forearm. Pain is commonly present in the majority of cases, and is aggravated by exertion, especially with the arms in the dependent position. Paresthesias and numbness, in addition to loss of skin sensibility, are noted over the ulnar half of the hand and lower forearm. Recurrent attacks of pain in the neck region are prominent, and often associated with muscle spasm or torticollis. Symptoms related to vascular disturbances are usually manifested by pulse abnormalities. Palpation reveals a faint or absent pulse. With the arm raised above the head, as the head is turned sharply to the opposite side, the pulse may be obliterated. This maneuver constitutes the Halsted or Adson test. By this means, the subclavian artery is compressed between the cervical rib and the scalenus anticus



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muscle. Vasomotor disturbances in the hands, involving variations in color, profuse perspiration, and/or edema, are additional symptoms that may be encountered. With any of these diagnostic criteria at hand, roentgenographic demonstration of cervical ribs is dramatically conclusive of the syndrome, even in a young child.

In order to provoke greater awareness of this condition in childhood, the following case is recorded of a four-year-old youngster, in whom symptoms of neurovascular compression occurred in the presence of congenital cervical ribs.

A feature of considerable interest in this case, not hitherto adequately explored or elaborated on in previous commentaries on this condition, concerns certain findings relating to stigmata of degeneration. Bassoe[5] believed that individuals with cervical ribs reveal or possess an underlying neuropathic diathesis. Rosenhaupt[6] is quoted as stating "that cervical ribs are found in the progeny of persons with some physical degeneracy." Bassoe[5] noted a significant coincidence between syringomyelia and cervical ribs. In those bearing the latter abnormality he was skeptical of the normal integrity, both physical and mental, of their central nervous system. Explicit evidence of such nervous system involvement was elicited in our patient in the form of a series of markedly abnormal electroencephalographic tracings, demonstrating a tendency towards a convulsive state or psychomotor epilepsy. His behavior encompassed such neuropathic traits, as extreme irritability, excessive crying, convulsive-like spasms of neck and extremities, and a multitude of bizarre complaints. Electroencephalograms taken after a period of anticonvulsant therapy, and subsequent to scalenotomy, exhibited abnormal paroxysmal activity similar to the initial tracing. In striking contrast was the marked improvement in the child's clinical symptomatology during the past year following surgery.

Report of Case

A four-year-old boy was first seen as an office patient in July, 1959, at which time the complaints were related to vaguely defined attacks of pain in the upper extremities associated with sleeping difficulties. Intermittent episodes of severe pain involving the hands and neck had been occurring during the previous year. They would most commonly appear at bed-time, interfering with sleep; and were characterized by spasmodic jerking and rubbing of the hands, and clutching at his neck. With upward-rolling of his eyes, and appearing almost unconscious, he would often fall to the floor. These paroxysms continued for 10 to 30 minutes, after which the child would resume his playing or eventually fall asleep.

There was no familial history of epilepsy. Past illnesses consisted essentially of recurrent attacks of tonsillitis, viral infections, and measles. The natal and peri-natal histories revealed no relevant data. He had received all the necessary immunizations. His growth and developmental progress had been normal. The patient sat alone at six months,

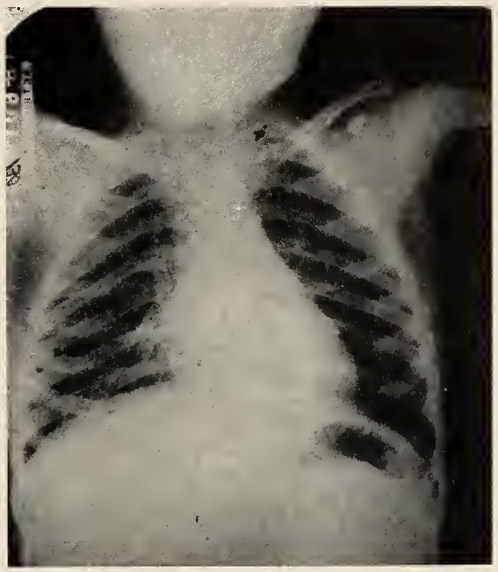


Fig. 1. Chest radiograph showing well-developed bilateral cervical ribs.

and walked at 14 months. He spoke in sentences at 18 months. He is the youngest of five children. His mother died in 1955, following a thyroidectomy. The father, 38 years of age, is in good health. His four sisters are likewise well. There was no family history of other diseases.

Physical examination revealed a well-developed Negro child of normal mentality, alert, cooperative, and in no distress. His height was 43 inches (109.2 cm.) and weight 52 pounds (23.6 kg.). The temperature was 98.6° F. (37.0° C.) orally, and pulse, 100. The blood pressure in the arms was 92 mm. Hg. systolic and 55 mm. Hg. diastolic; in the legs, 112 mm. Hg. systolic and 60 mm. Hg. diastolic. The head was symmetrical. The eyes showed no abnormalities; the pupils were equal and regular, reacting to light and accommodation. The nose was slightly congested. The fundi were unremarkable. The mouth, tongue, and throat were normal. The neck was supple, with several small, anterior cervical lymph nodes. The lungs were clear. The heart size and tones were normal. The rate was 100; and there were no audible murmurs. The abdomen was soft and flat. The liver and spleen were not enlarged. The extremities, as well as the tendon reflexes, were normal.

Laboratory investigations yielded the following information: The electrocardiogram was within normal limits. The erythrocyte sedimentation rate was 4 mm. in one hour, the concentration of hemoglobin was 12.0 gm. per 100 ml. of blood, and the leukocyte count was 7,200 per cubic millimeter of blood, with 58 per cent neutrophiles. Platelets were adequate, and the sickle-cell test was negative. Urinalysis

was negative. Hematocrit was 41; the ASO titer, 166; and the CRP, 0. The tuberculin skin test was negative. The throat culture showed a heavy growth of normal flora.

Prior to hospitalization, an electroencephalogram had been performed in July, 1959, and was rated a number V, diagnosably abnormal (Fig. 2). Spikes and diphasic waves were

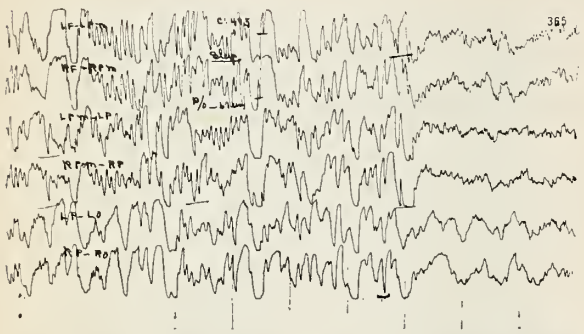


Fig. 2. Electroencephalogram (July, 1959) showing spikes and diphasic waves. This pattern is consistent with focal and/or generalized seizures.

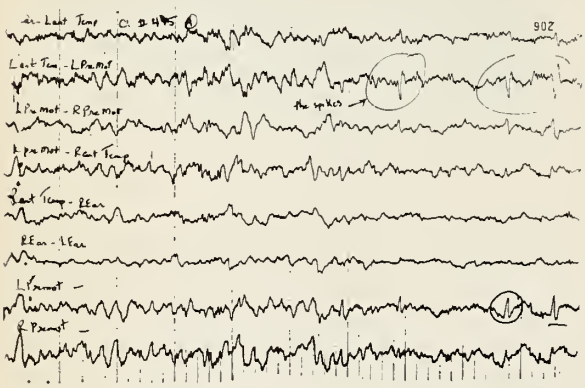


Fig. 3. Electroencephalogram (May, 1960) after anti-convulsive medication, showing a pattern essentially the same as of the previous study (Fig. 2).

seen in the right temporal and left parietal areas, with similar episodes in the premotor and occipital zones. Diffuse high voltage episodes of variable dysrythmic complex were observed to the maximum in the right hemisphere. The pattern was consistent with focal and/or generalized seizures of cortical, subcortical, and centrencephalic origin.

In view of these findings, and while awaiting parental consent for further hospital investigations, anti-convulsant medications, phenobarbital and dilantin, were prescribed. After a number of months on this therapy, it seemed to the foster mother that the patient revealed some improvement, both as to the frequency and the severity of the seizures. Even though more affable, the child continued to experience his paroxysms, which became diurnal as well, and often associated with eating. While raising food to his mouth, he would throw his spoon down, crying out with pain, shaking his hands, and beating them on the table. During these episodes he would sometime grab at an area around his neck, pulling at the mandible (as if to relieve pressure). There was no loss of consciousness or incontinence. The movements seemed purposeful and coordinated. Between attacks the patient exhibited fatiguability, restlessness, and irritability.

A repeat electroencephalogram taken during hospitalization (10 months after institution of anticonvulsant medication), likewise was rated as a number V, diagnosably abnormal tracing, showing a pattern very similar to the previous record (Fig. 3).

Roentgenograms of the chest revealed, in addition to normal lungs and heart, the presence of well-developed bilateral cervical ribs (Fig. 1). AP and lateral films of the



Fig. 4. Electroencephalogram (March, 1961) eight months after scalenotomy, still showing spiking and slow wave activity, compatible with clinical convulsive disorder of a mixed type.

cervical spine, oblique and direct projection, revealed no abnormalities with respect to mineral content of the vertebral bodies or their processes, no fracture deformities, erosion, or evidences of a destructive process. The inter-vertebral discs and foramina were likewise normal.

Neurosurgical consultation (Dr. Wm. H. Allen): The main findings included diminution of distal radial pulses during the Adson test, and complete obliteration of said pulses on hyperabduction of the arms. There was hypalgesia, seemingly of ulnar distribution of forearms and hands, right greater than left. Motor power was still preserved. The deep tendon reflexes were normo-active. No fasciculations or edema were present. Impression: Thoracic outlet, neurovascular compression syndrome, in the presence of congenital cervical ribs.

On July 29, 1960, under general endotracheal anesthesia, bilateral scalenotomy was performed by Dr. Wm. H. Allen. The operative notes follow: The right omohyoid muscle was divided. The right phrenic nerve was identified, coursing over the anterior aspect of the scalenus anticus muscle, which, in turn, was fractionally sectioned near its insertion on the first rib. The right subclavian artery, which had definitely been compressed at this point, now assumed its normal calibre, and did not appear injured in any way by the chronic compression. Palpation of the right cervical rib revealed it to be elongated and held down or attached

at its distal end to the first rib, so that it was relatively immobile. Upward displacement of the over-riding brachial plexus and subclavian artery seemed minimal, and thus resection of the cervical rib did not seem necessary. Further exploration of the brachial plexus, and its relation to the scalene muscle triangle disclosed abnormal or atypical nerve muscle relationship proximally, whereby the plexus passed through the fibers of the proximal scalenus anticus muscle. Wide anterior scalenectomy was therefore necessary, being accomplished in piecemeal fashion, dividing compressing bands of muscle which passed through the plexus to the cervical rib. Both upper and lower plexus decompression were widely established; and the operative incision was then irrigated well with sterile saline solution and closed. On the left side, the scalene region was exposed by sharp and blunt dissection. Although the left cervical rib may not have been quite as well developed as the right, the findings on the left side were nevertheless essentially the same, so that a wide subtotal anterior scalenectomy was necessary on the left also for adequate neurovascular decompression.

Comment.—Except for the vague complaint of irritability, the patient has remained free of the aforementioned bizarre paroxysms of pain. In essence, his condition has progressed satisfactorily during the past year, subsequent to the operative procedure. Because of the nature of the findings at operation, complete obliteration of the symptom complex in future years is not anticipated. Eventually, more drastic surgical exploration, with excision of the cervical ribs may be indicated.

A follow-up electroencephalogram, done on March 23, 1961 (Fig. 4), about eight months after operation, disclosed, as on previous occasions, an abnormal tracing that was compatible with a convulsive disorder of a mixed type. There was no appearance of focal slowing on the tracing while pressure was exerted on either cervical rib. Adson's maneuver resulted in no significant change on the record.

Clinical reports of electroencephalographic records performed in cervical rib syndrome cases not being available, it would be hazardous to implicate an effect on the cortical or subcortical areas of the brain by virtue of the compression of neurovascular structures in the neck. That there are possible cerebral manifestations of the syndrome is intimated by the views and clinical findings of several authors,[5,6] who maintain the existence of a neuropathic diathesis in persons with cervical ribs. Bassoe,[5] regarded such individuals with great skepticism, believing that most, if not all, possessed less than normal integrity of their central nervous system structures; and he believed that they could scarcely be classified as mentally well-balanced personalities. In accordance with this concept, there is the possibility that our patient could qualify for placement in such a category. His clinically bizarre behavior accompanying the painful spasms as described, could be a manifestation of an underlying neuropathic constitution, mirrored in the diagnosably abnormal pre- and post-operative electroencephalographic tracings.

The paroxysmal phenomena, especially of the nocturnal type, exhibited by our patient in the form of the eyes rolling upward, and falling to the floor, was, at the outset, attributed to idiopathic convulsive seizures; and they were consequently treated with anticonvulsive medication. As the clinical syndrome of neurovascular bundle compression by cervical ribs evolved, these episodes could have been interpreted in the light of intermittent anoxia, due to compression of important cervical blood vessels. On the other hand, the constant appearance of paroxysmal activity in each of several consecutive electroencephalograms probably represents unassailable evidence of an underlying convulsive state, or psychomotor epilepsy. These considerations could, in part, represent the etiologic basis for the patient's clinical convulsive and bizarre behavior.

In a widespread congenital condition such as cervical ribs, manifested in about 1 per cent of the population,[7] there is probably a higher incidence in childhood than is generally believed. In this age group the symptoms of neurovascular compression, although identical with those frequently observed in adults, may, in addition be interspersed with various behavior deviations. For more complete comprehension and clarification of the variegated symptoms related to cervical ribs, electroencephalograms would be indicated in adults as well as children.

Summary

The report of a case of cervical ribs in a pre-school child with symptoms of neurovascular compression and associated bizarre behavior of a paroxysmal type, is presented. Electroencephalographic studies prior, and subsequent to, scalenotomy were performed, disclosing a convulsive tendency. The concept of underlying central nervous system abnormalities in both children and adults with cervical ribs, as depicted in electroencephalograms, is worthy of further investigation.

Acknowledgment

Dr. William H. Allen, neurosurgeon, and Dr. Joseph H. Chandler, neurologist, were of great assistance in their respective fields.

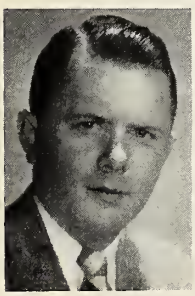
(References are on Page 717)

Epilepsy and Michigan Law

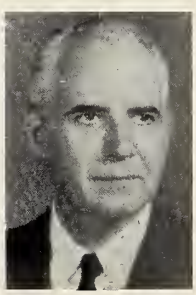
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RECENTLY, during a conversation with one of our Michigan state senators, a statement was made decrying our archaic laws regarding epilepsy, with the comment that under the law, gross injustice could be administered to the state's approximately 80,000 epileptics and that the legislature should do something about this problem. The senator then asked a most pertinent question: "What are these unjust laws that need revision?" The first impulse was to reply, as an example, that it was well known that epileptics could not legally marry in this state. Such a statement has been published and frequently was quoted.[1,2] On second thought, it was realized that few physicians could claim competence in describing any law of this state pertaining to epilepsy. After discussing this matter with other physicians, including our colleagues in neurology, we found that they were not acquainted with the laws. Talks with several lawyers revealed that there was no readily available compilation of statutes regarding epilepsy. It seemed important for the medical profession to be aware of the actual nature of these statutes, not only to aid and advise patients but also as a basis on which to recommend revision of the law, should any revision seem indicated.

This paper, therefore, will summarize the Michigan statutes pertaining to epilepsy and the court opinions based upon these statutes. It should be noted throughout their presentation that, although these laws are not new, very few cases have been found which indicate that an individual with epilepsy has suffered from their application. The mere fact, however, that certain of these statutes are in force in Michigan Law is demoralizing to the individual with convulsive seizures. Furthermore, even though rarely used in the past, these laws have the potential to cause injustice in the future. We shall, therefore, present the laws for reference and will clearly separate our own opinion regarding the justification of the statutes from their presentation.



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Definitions

A chapter in the Michigan Public Health Code entitled "Insane, Feeble-minded and Epileptic" provides definitions of the terms "mentally ill," "mentally handicapped," "feeble-minded," and "mentally diseased." An elaborate, though inadequate by present-day standards, attempt is made to differentiate the mentally ill and the mentally handicapped. There is no effort, however, to define the term epileptic. The act states:

> "In this act, the term 'mentally diseased' shall be considered as referring to any person who is either mentally ill, mentally handicapped, or epileptic."[3]

Thus, other than being categorized under "mentally diseased," there is no definition of "epilepsy."

In a complex case in 1939 involving commitment, insanity, and epilepsy, the Michigan Supreme Court cited the following definition of epilepsy from Dorland's "American Illustrated Medical Dictionary," 17th Edition:

> "Epilepsy is defined to be a chronic functional disease characterized by fits or attacks in which there is loss of consciousness, with a succession of tonic or clonic convulsions."[4]

This is obviously not a satisfactory overall definition, as it refers merely to grand mal seizures.

In summary, there is no statutory definition of epilepsy other than including it under the group of "mentally diseased," and the above citation is the closest the state Supreme Court has come to defining the term.

From the Department of Neurology, University of Michigan Medical School.

Commitment

Commitment procedures for epileptics are included in the Michigan Public Health Code in a section of the statute referring to "Insane, Feeble-minded and Epileptic." The procedures for temporary detention, voluntary patients, transfer of patients, petitions and hearings, commitment to private institutions, and discharges are similar to those used for mental illness. They are sufficiently well known to make repetition unnecessary. The law also established a "hospital for the humane, curative, scientific, and economical treatment of epileptic persons, to be known as the "Caro State Hospital for Epileptics."[5]

There seems to be reasonable protection for the individual and for society under these laws. The usual two physicians' certificates of "mental illness, feeblemindedness, or epilepsy" are required. Although the severity of epilepsy necessary for commitment is not mentioned, or explained, the law requires that the physicians

> ". . . show that the condition of the person examined is such as to require care and treatment in an institution for the care, custody, and treatment of such mentally diseased persons."[6]

It would seem to be difficult for even unscrupulous individuals to commit an individual with mild epilepsy against his will.

Sterilization

The Michigan Sterilization of Mental Defectives Act of 1929 states:

> "An act to prevent the procreation of feeble-minded, insane and epileptic persons, moral degenerates, and sexual perverts; to authorize and provide for the sterilization of such persons and payment of the expenses thereof. . ."

The state policy was spelled out:

> "It is hereby declared to be the policy of the state to prevent the procreation and increase in number of feeble-minded, insane, and epileptic persons, idiots, imbeciles, moral degenerates, and sexual perverts, likely to become a menace to society or wards of the state. The provisions of this act are to be liberally construed to accomplish this purpose."[7]

Definitions are included as follows:

> "The words 'mentally defective' person or 'defective person' in this act shall include all feeble-minded, insane and epileptic persons, idiots, imbeciles, moral degenerates and sexual perverts."[8]

A parent, husband, or wife, sibling, child, or guardian of the individual, the medical superintendent or director of any state institution, the state welfare commission, the sheriff, or supervisor of any township, is given the right to petition for sterilization.[9] A report of the Attorney General of Michigan indicated that a mentally defective person, and the term included epilepsy, is subject to the provisions of the Sterilization Act even though that person is not under the custodial care of a state institution.[10] Reputable physicians must determine whether or not the individual is a mentally defective person subject to the Sterilization Act. The right of jury trial and appeal by the individual or others on his behalf are clearly set out in the law.

In 1925, the Sterilization of Mental Defectives Act of Michigan was tested in the case of a 16-year-old boy.[11] His guardian brought an action in the Michigan Supreme Court to reverse an order of a Probate Court ordering sterilization. The guardian claimed that the law permitting sterilization is an invalid exercise of the state's police power and imposes a cruel or unusual punishment prohibited by the Michigan Constitution. Although the plaintiff won the case due to lack of compliance with procedural aspects of the law, the Supreme Court stated that the law was a reasonable exercise of the state's power to legislate for the public health and welfare and did not impose a cruel punishment.

Comment.—Professor James Neel has acknowledged: "Before man attempts to grasp the reins of his genetic destiny, he should have a far more comprehensive knowledge of human inheritance than is now at his disposal." He also comments that "despite a large amount of work, the genetic basis of epilepsy is unclear." Eugenic legislation is based on an old and fallacious school of genetics, either attempting to create a superior race, or at least a race that would prove to be socially innocuous. This faulty reasoning does not consider that the carrier, with no obvious disability, may be as able, or even more likely, to transmit an undesirable genetic trait as the afflicted individual. Again quoting Professor Neel: "Eugenic procedures based upon our present limited knowledge cannot help being discriminatory, in the sense that they single out for action the obviously handicapped, while failing to touch those no less handicapped but in less apparent ways."[12]

The chances of an epileptic transmitting this disorder to a descendant are less than that with diabetes.

It has also by no means been proven that the procreation of an individual who develops epilepsy is necessarily contrary to the interests of society.

Recommendation.—Remove references to "epilepsy" from the Sterilization of Mental Defectives Act of Michigan.

Marriage

The Michigan statutes contain a chapter "Marriage and Solemnization Thereof." The original statute was enacted in 1846 but the provisions relating to epilepsy were added in 1899. This law states:

> "No person who has been confined in any public institution or asylum as an epileptic, feeble-minded, imbecile or insane patient, or who has been adjudged insane, feeble-minded, an epileptic or an imbecile by a court of competent jurisdiction shall be capable of contracting marriage without, before the issuance by the county clerk of the license to marry, filing in the office of the said county clerk a verified certificate from two (2) regularly licensed physicians of this state that such person has been completely cured of such insanity, epilepsy, imbecility or feeble-mindedness and that there is no probability that such person will transmit any of such defects or disabilities to the issue of such marriage. Any person of sound mind who shall intermarry with such insane person or idiot or person who has been so confined as an epileptic, feeble-minded, imbecile, or insane patient who has been so adjudged insane, feeble-minded, an epileptic or an imbecile, except upon the filing of certificate as herein provided, with knowledge of the disability of such person, or who shall advise, aid, abet, cause, procure or assist in procuring any such marriage contrary to the provisions of this section shall be deemed guilty of a felony and on conviction thereof in any court of competent jurisdiction shall be punished by a fine of not more than one thousand dollars or by imprisonment in the state prison at Jackson not less than one (1) year nor more than five (5) years, or by both such fine and imprisonment in the discretion of the court."[13]

Another section provides a penalty not exceeding a five hundred dollar fine for a justice of the peace or minister of the gospel who marries individuals contrary to the provision of this law.[14] Another statute states:

> ". . . any person applying for a marriage license who shall swear to a false statement therein, shall be guilty of perjury, and shall be prosecuted therefore under the general laws of the state."[15]

In 1928, in the case of *Gordon vs. Gordon*, H had suffered a fractured skull seven years prior to marriage and had had a number of epileptic seizures. Before the marriage H informed W of the injury and assured her that he had completely recovered. In the divorce proceedings, W charged that she was deceived by H because after the marriage he had several epileptic seizures. W was granted a divorce on the ground of "extreme cruelty." The Michigan Supreme Court reversed the divorce decree and stated:

> "If defendant (H) had not recovered at the time of the marriage, and knew that he had not, and represented at the time of the marriage that he had, then he practiced deceit, but, if he believed he had recovered, and had good reason for the belief, then, even the unfortunate recurrence of the old trouble would not make him guilty of deceit or afford plaintiff any ground for dissolving the marriage. Defendant was advised of his recovery by his physician, and, before marriage, was examined by and advised of his recovery by a physician selected by plaintiff's (W) father. It is doubtful whether defendant had an epileptic seizure after marriage but if he did he was to be pitied and was not guilty of deceit."[16]

Also, an opinion of the Michigan Attorney General in 1951 stated:

> "2. The Michigan statute in respect to the marriage of epileptics applies only to epileptics who have been committed as or adjudged epileptic. . . . In the event the defendant was unaware of his or her affliction at the time of marriage, its existence at that time would have no bearing on the question of divorce. In the event the defendant was aware of the affliction and deliberately concealed that fact from the plaintiff, the majority of courts hold that such concealment is not such fraud as would go to the heart of the marriage contract. There is, however, no Michigan case in point on this subject.
>
> "3. . . . it is my opinion that epilepsy developing after marriage is not a ground for divorce in Michigan.
>
> "4. (The language of the Michigan statutes) . . . indicates an intention upon the part of the legislature that the marriages other than those to which these sections refer are not void but merely voidable at the instance of one of the parties.
>
> "The marriage in Michigan of a committed or adjudicated epileptic, who has not filed the required physicians' certificate is not void but merely voidable. It is within the inherent power of the court of equity to annul such a marriage."[17]

The word "adjudged" as used in the marriage laws, i.e., adjudged epileptic, is not defined in the statutes;

however, according to legal experts, it implies a decision by a court of competent jurisdiction.[18]

Comment.—It can be seen that the marriage law probably would not affect most individuals with epilepsy in Michigan, for the great majority of them have not been legally "adjudged epileptics." If, however, an epileptic was known to have appeared before a court and been adjudged (and perhaps committed) as epileptic, as a practical matter it would be impossible for him to marry legally; also it would be illegal for anyone to marry him. Obviously it would be impossible to obtain two reputable physicians who truthfully could state that the individual had been "completely cured" and that there was no possibility of transmission of the convulsive tendency to his children.

Recommendation.—As in the problem of sterilization laws, it is well known that the inherited aspects of epilepsy have been over-estimated. As recent years have seen the development of many new anticonvulsant drugs and many more are anticipated in the near future, there should be no legal obstacle to prevent the epileptic from marrying. The physician should not be required to testify that there has been complete cure; cure, of course, being a term that cannot be applied with reference to epilepsy any more than it can to diabetes. Therefore, it is obviously important to remove the word "epilepsy" from the statutes concerning marriage.

Drivers' Licenses

The Michigan Vehicle Code states:

> "The commissioner shall not recommend or shall the department issue any license hereunder. . . .
>
> 5. To any applicant who has previously been adjudged insane or an idiot, imbecile, epileptic, or feeble-minded, and who has not at the time of such application been restored to competency by judicial decree, nor then unless the commissioner is satisfied that such person is competent to operate a motor vehicle with safety to persons and property."[19]

The statute goes on to state:

> "It shall be the duty of the several probate courts of this state to report to the secretary of state all changes of name authorized by such probate courts, and the name, address, age description, and operator's or chauffeur's license number when available, of every person adjudged to be insane, feeble-minded, epileptic or as a liquor or drug addict. The secretary of state shall prescribe and furnish the forms for making such reports."[20]

Thus, much of the responsibility is given to the Motor Vehicle Administrator. If a license is denied, there is a mechanism for appeal to a Board consisting of the Secretary of State, the Attorney General, and the Sheriff of the county in which the petitioner resides. Apparently, no physician is a member of this board.

It is obvious to physicians that epileptics who have not been legally "adjudged" to be epileptic often are denied driver's license privileges; the following provision of the statute would provide for this limitation:

> "6. . . . to any person when in the opinion of the commissioner such person is afflicted with or suffering from such physical or mental disability or disease as will serve to prevent such person from exercising reasonable and ordinary control over a motor vehicle while operating the same upon the highways, nor shall a license be issued to any person who is unable to understand highway warning or direction signals in the English language. . . ."[21]

This section gives the Motor Vehicle Administrator broad power and authority to investigate and examine any driver whose mental or physical condition may in any way affect his ability to operate a motor vehicle.

It should be mentioned at this point that epilepsy is not a reportable disease in Michigan. Hence, it would be a violation of the patient-physician relationship for the physician to notify governmental authorities that an individual with seizures has consulted him in a professional capacity.

The Secretary of State graciously cooperated with our request for a statement of the regulations pertaining to individuals subject to convulsions. In making the final determination as to licensing of seizure patients, the Motor Vehicle Administrator is concerned with the severity and frequency of seizures, the past medical record, the past driving record, and the degree of reliability and stability which the doctor indicates is present in his patient. The present general policy of Michigan is to deny every person subject to convulsions a driver's license, until he presents a physician's statement, on a form provided by the State, indicating that he had received medical care and treatment for at least one year and has not had a seizure resulting in loss of consciousness during that year. When this statement is received with (or prior

to) application for a driver's license, tentative approval for issuance of a driver's license is usually given. The licensing officials have then accepted the individual. On the basis of the information, they believe him to be a favorable risk, primarily because he has proven himself reasonably reliable and faithful in his medical program. Therefore, he is considered a controlled epileptic. Any time that a report from a law enforcement agency or other interested and responsible person gives information indicating the recurrence of seizures, the state accepts the responsibility for investigating and re-examining the driver. The state then requires the individual to acknowledge the fact that he should not drive because of the unpredictability of his condition and/or go at least another year without seizures to indicate that they are controlled. A statement of Mr. Fred Vanosdall, Chief of Driver Improvement Control, demonstrates the enlightened policy of Michigan and merits direct quotation:

> "a person who is a controlled epileptic and has demonstrated his ability to control his condition and maintain a seizure free record is very probably a better driver in his daily driving habits than the so-called average driver. I have come to the same conclusion when dealing with most handicapped individuals and believe this is generally true except when the individual's attitude towards society as a whole is embitterment or belligerence."

The current policy of the licensing officials certainly would seem to provide suitable safeguards for the epileptic individual and for society.

This licensing regulation of Michigan might be contrasted with Ohio, which has placed the requirements for driver's registration for epileptics into a specific law, thus removing much of the responsibility from the Motor Vehicle Administrator. The Ohio law provides that a driver's license can be issued to an epileptic if his physician states that his seizures have been under effective control for at least a year and he is otherwise qualified to drive. The Motor Vehicle Registrar may then issue a restricted six-month license or require a medical examination. He may deny the license, if cause for denial is found. The individual may then appeal the denial to a review board of three members, one or more of whom must be a physician:

> ". . . qualified in diagnosis and treatment of episodic disorders of consciousness or muscular control."[22]

The board must consider extent and duration of control, the applicant's reliability, and any other relevant evidence. The registrar's decision may be approved, modified, or reversed. If a six-months restricted license is issued, the registrar can reissue it every six months upon receipt of a notice from a physician that control has been continuous for the preceding months and if the extension is recommended by the physician. The registrar cannot refuse the license unless medical examination shows cause, and again that decision may be appealed. There are probably advantages and disadvantages in each approach —giving the authority to the Motor Vehicle Administrator as in Michigan or defining the regulations by statutes as in Ohio. An analysis of this is beyond the scope of this paper. At present, it is the subject of a study with the American Association of Automotive Medicine and the American Association of Motor Vehicle Administrators.

Summary

Michigan statutes regarding epilepsy have been reviewed. Despite the laws concerning epilepsy, there is no legal definition of the term. The following observations were made:

1. The laws concerning marriage and sterilization of the epileptic are archaic and should be repealed.
2. Laws regarding commitment of the uncontrolled epileptic seem to be adequate, offering suitable safeguards both for society and to the individual.
3. Statutes regarding drivers' licenses for epileptics give much authority to the Motor Vehicle Administrator. The problems involved in licensing are many and further study is being made. At present, however, the policy of the Secretary of State indicates that Michigan is following an enlightened policy providing suitable protection for society, yet not discriminating against the epileptic.

Acknowledgments

We would like to express our appreciation to the following: John W. Simpson, Jr., Assistant in Research, University of Michigan Law School, for reviewing and collecting the Michigan laws regarding epilepsy; Mrs. Elizabeth Gaspar Brown, Research Associate, University of Michigan Law School, for assistance in the legal research for this paper; James M. Hare, Secretary of State, and Fred Vanosdall, Chief, Driver Improvement Control, State of Michigan, for their cooperation; and Professor Marcus L. Plant, University of Michigan Law School, for reviewing the manuscript.

Addendum

Since its submission for publication, copies of this report were given to State Senators Stanley G. Thayer and John W. Fitzgerald, who introduced Senate Bills 1176 and 1177 which provide for the deletion of any reference to epilepsy from the marriage and sterilization statutes of the State of Michigan, as recommended in this study. These bills passed the Senate and House of Representatives and were signed into law by Governor Swainson during April, 1962.

Aside from the deletion of references to epilepsy, the statutes quoted in this study remain essentially the same.

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Cervical Ribs in a Young Child

(Continued from Page 711)

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Cutaneous Sensitivity to the Ingestion of Alcohol

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INFREQUENT reports of eruptions from the ingestion of ethyl alcohol have appeared in the medical literature. Haxthausen,[1] in 1943, described a medical student who developed eczema of the hands after washing with alcohol. She developed erythema and edema of the hands after drinking brandy. Patch tests to ethyl, methyl and propyl alcohol were positive.

Dees[2] stated that an occasional patient may develop asthma, urticaria, angioneurotic edema, eczema or vasomotor rhinitis from alcoholic beverages. She described seven patients exhibiting alcohol sensitivity: three developed asthma after alcohol ingestion; three others had urticaria and/or angioneurotic edema; one developed histamine headaches. Six of the seven patients exhibited positive intradermal skin tests to one or more inhalants or foods.

More recently, Scott[3] reported a case of contact dermatitis to alcohol in a 19-year-old girl. Alcohol ingestion produced no skin eruption in this patient.

This report concerns a patient of ours who consistently developed a pruritic skin eruption following the ingestion of alcohol.

Report of Case

A woman, aged thirty-one, was well until September, 1960, when she developed a pruritic erythematous eruption of her forearms and face. The skin eruption persisted four days and then disappeared. When it recurred one month later, she was seen by us as an out-patient. She stated that, on each occasion, the eruption had appeared 24 hours after drinking a bottle of beer.

In the following two months, the patient observed similar difficulty after drinking rye whisky or vodka. On each occasion, the eruption cleared rapidly with antihistaminics and ACTH injections.

She worked as a bar maid for many years and had consumed on the average of 7 ounces of whisky daily with no apparent ill effect. During the previous two summers, the patient stated that she had developed a dermatitis on the exposed parts of the skin when she was in the direct sunlight.

Examination of the skin during the first 24 hours after the ingestion of alcohol revealed erythematous, edematous, almost urticarial, poorly defined plaques covering most of the flexor and medial aspects of the forearms. There was similar involvement of the cheeks. During the next four days the edema gradually subsided and only a mild scaly erythema remained.

The laboratory studies included a complete blood count, urinalysis, L.E. cell test, serologic test for syphilis, urine examination for porphyrins and 5-hydroxy indolacetic acid, all of which were within normal limits.

In order to determine whether one of the impurities in alcoholic beverages was responsible for the patient's eruption, she was given the equivalent of 2 ounces of 95 per cent ethyl alcohol. Within three hours, she developed an erythematous, edematous eruption on her forearms and face. Intradermal tests to oranges, peanuts, milk, dog hair, horse dander, kapok, silk and aspergillus caused three plus immediate wheal reactions. Patch tests to ethyl and isopropyl alcohol were negative.

Comment

Tuft[4] stated that alcoholic beverages may cause allergic diseases, but that these are most commonly due to sensitization to agents from which the beverage is prepared, i.e., barley, malt, rye, wheat, or egg white. He believed that, if alcohol itself causes a reaction, it is due to the increased absorption from the gastrointestinal tract of certain breakdown products of proteins.

Vaughan[5] believed that traces of foreign substances in alcoholic beverages can cause clinical manifestations of allergy. He also mentioned the possibility that alcoholic beverages can accentuate allergic disease non-specifically by increasing permeability of the gastrointestinal tract, thus increasing the absorption of breakdown products of proteins. He gave, as an example, the clinical intolerance to oysters being manifested only when a large amount of alcohol is consumed with them.

Dees[2] found that alcohol ingestion in allergic individuals caused accentuation of allergic and hista-

From the Department of Dermatology (Dr. Coskey and Dr. Fosnaugh; Dr. Clarence S. Livingood, Chairman), Henry Ford Hospital, Detroit, Michigan.

mine wheals. Also, she suggested the possibility that the ingestion of alcohol can lower the threshold of reactivity to food and inhalants.

Our patient developed her eruption after the ingestion of beer, rye whisky and 95 per cent ethyl alcohol. Her reaction to the latter indicates that she reacted to ethyl alcohol and not to the impurities in beer or whisky. She had many positive immediate wheal reactions to the intradermal tests to inhalants and foods. It is possible that alcohol ingestion precipitated an allergic reaction to foods and/or inhalants. However, it is also possible that the alcohol, acting as a haptene, formed a conjugate with a body protein and caused her dermatitis.

Summary

A case of dermatitis on the forearms and face following the ingestion of alcoholic beverages is reported.

The explanation for cutaneous reaction to an alcoholic beverage may be:

1. Foreign substances in the beverage may cause the reaction.
2. The alcohol may increase permeability of the gastrointestinal tract, thus facilitating the absorption of incompletely digested proteins.
3. It might cause a subclinical reaction to become apparent.
4. It might act as a haptene and combine with a body protein, causing an allergic reaction.

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Blood Bank Standards Revised

The basic document for voluntary accreditation of blood banks has been revised and is available for distribution from the Joint Blood Council. "Standards for a Blood Transfusion Service," third edition, 1962, provides improved guidelines for evaluating and conducting an acceptable blood transfusion service in hospitals and community blood banks.

Gunnar Gundersen, M.D., President of the Council and Past President of the American Medical Association, said, "The use of the previous editions of these Standards has been gratifying and undoubtedly has played an important part in elevating and maintaining high quality blood services for our patients. The new Standards show the results of constant study in this area for the past two years." Close liaison between the Standards Committee of the American Association of Blood Banks and the Council's Scientific Committee in jointly preparing the document since last revised has brought advanced technical knowledge to blood handling institutions.

Copies may be obtained directly from the Joint Blood Council, 1500 Massachusetts Avenue, N.W., Washington 5, D. C., at $1 each, payable with the order. A discount of 25 per cent may be given on orders of 12 or more.

Treatment of Dermatoses with Large Doses Of Triamcinolone Acetonide (Kenalog®) By Intralesional Injection

Arthur E. Schiller, M.D.
Detroit, Michigan

THE SEARCH for more effective therapeutic means for dealing with severe or persistent dermatologic disorders need not always await the discovery or introduction of new drugs with greater potency than those currently available. By utilizing new avenues of treatment, new methods of administration and varying the dosage program, it is sometimes possible to greatly enhance the effectiveness of existing agents.

Therapy with corticosteroids is a case in point. A great variety of inflammatory and pruritic dermatoses are well known to respond favorably to this class of drugs. The steroids can be administered topically in the form of creams, aerosol sprays, foams, and orally or parenterally. If the nature of the skin disorder is severe or if lesions are extensive and refuse to clear, topical administration of steroids may prove inadequate for satisfactory results. In such cases, the systemic route of administration is usually tried, but the doses necessary to achieve improvement of skin lesions may produce undesirable systemic effects, particularly in long-term therapy.

The introduction of steroid medication directly into lesions by intradermal or subdermal injection would seem to offer a possibility to circumvent many of the dangers associated with systemic administration.[1] At the same time, the effectiveness of the drug remains undiminished and concentrated within the lesion site. This principle has of course been utilized with success in the intra-articular injection of steroids for patients suffering from arthritis.[2,3,4] More recently, there have been published reports of intradermal administration of triamcinolone acetonide in localized cutaneous lesions such as discoid lupus erythematosus, psoriasis and neurodermatitis.[5,6] While results were dramatic in many instances, the total dose injected into lesions was exceedingly small, never greater than 1 or 2 cc. per treatment.



The Author
ARTHUR E. SCHILLER, M.D.

Conceivably, more significant results could perhaps be achieved by injecting much greater doses of this drug without necessarily increasing toxic effects. The following study was undertaken with this idea in mind. Results are presented for 24 dermatologic patients, the majority of whom were treated by injecting locally massive doses of triamcinolone acetonide. It is hoped that this study can throw some new light on the effectiveness of this drug when used in higher doses and administered in a new and at present perhaps unorthodox manner.

Methods and Materials

Patients.—This study comprises 24 patients, 9 male and 15 female, between 17 and 67 years of age. All patients were seen in private practice and demonstrated a variety of dermatologic indications of varying duration and severity. These included neurodermatitis, lupus erythematosus of the discoid type, herpes zoster, alopecia areata, and several other conditions, all of which are listed in Table I. Some of these patients had been treated previously with topical and systemic steroids, such as prednisolone and hydrocortisone, x-ray and a variety of medication, all of which failed to give satisfactory results. Pruritus was part of the symptom complex in most instances. Half of the patients seen suffered from neurodermatitis. This often extended in patches along the back of the neck, thighs, elbows, arms and legs, some lesions having attained the size of the palm.

Medication and Treatment.—All patients were treated with triamcinolone acetonide, 10 mg./ml. in the form of Kenalog Parenteral. Dosage considerations were based on severity of symptoms, size and extent

of lesions, their previous duration, and effectiveness of prior therapy. Since it was planned to study the effect of massive doses, usual dosage recommendations were disregarded. The highest total dose administered at any one treatment was to a patient that lived some 400 miles away and to a lesion covering the entire anterior and lateral surfaces of the lower third of the leg, 15 cc. were injected into the lesion at 15 different sites. Normally, a half-dollar sized lesion might be injected with 0.5 to 1.0 cc. of the drug. On the average, the patient dose per treatment was between 2 and 5 cc. The number of treatments varied with the severity of symptoms and response to the medication, and according to the patient's requirements for complete clearing of lesions varied from one to eight treatments over a period of two months. The method of injection depended on the size of the lesions. Small areas were injected intradermally. Large areas received a combination of intradermal and subdermal injections. In several instances, a local anesthetic, xylocaine, was incorporated with the medication or used beforehand to alleviate possible pain and discomfort.

TABLE I. DERMATOLOGIC DISORDERS TREATED WITH HIGH DOSES OF TRIAMCINOLONE ACETONIDE BY INTRALESIONAL INJECTION

Disorder	Cases Treated	Response		
		Excellent	Very Good to Fair	Poor
Neurodermatitis	12	5	5	2
Lupus erythematosus	3	0	2	1
Herpes zoster	2	0	1*	0
Alopecia areata	2	2	0	0
Keloid formation	1	0	1	0
Nummular eczema	1	1	0	0
Granulome, infiltrated	1	0	1	0
Leukoplakia	1	1	0	0
Psoriasis	1	0	1	0
Totals	24	9	11	3

*Second case lost to follow-up.

Results

Of 24 patients treated with triamcinolone acetonide injected directly into the lesions, the following responses were obtained:

Excellent	9
Very good to fair	11
Poor	3
Lost to follow-up	1

A response was considered excellent if pruritus was relieved promptly or within 48 hours, if lesions cleared completely with four injections or less, and, in the case of patients with alopecia areata, if the rate of hair growth was stimulated. Conditions responding best to the high injection doses of triamcinolone acetonide were found to be neurodermatitis, alopecia areata, nummular eczema, and leukoplakia, but gratifying results were also obtained in lupus erythematosus, herpes zoster, keloids resulting from injury, infiltrated granulomata and psoriasis. One patient with extensive neurodermatitis, previously on a regimen of 30 mg. of prednisolone per day, received a single 12 cc. injection of triamcinolone acetonide into patches on his leg and ankles. This one injection cleared the leg of lesions for a period of eight months. Thereafter, when lesions recurred, they were completely cleared again by another intralesional injection of 6 cc. of the same drug. Another patient had neurodermatitis of the nuchal area, inner surface of the thigh and hand and had a lesion on the thigh the size of the palm. The lesion on the neck was the size of a half-dollar. This patient received three treatments of intralesional injections of triamcinolone acetonide, the first a total of 15 cc. in all of the lesions followed ten days later by a second dose of 10 cc., then by a third dose of 10 cc. seven days after the second. These injections greatly improved the lesions. Within two months after beginning therapy, the patient could be discharged as completely cleared. Alopecia areata of two years' duration also responded spectacularly. Lesions of herpes zoster cleared more rapidly, and certainly with less discomfort than with other methods of treatment, such as injections of 2 per cent nupercaine in oil and treatment with local medication. It is notable that the burning pain was lessened from the start. One patient, with herpes zoster extending from the seventh cervical nerve and along the right arm, was successfully treated during a two-week period with injections of 2 cc. of triamcinolone acetonide at the neck and successive areas along the arm. These means had been resorted to previously to relieve the burning pain associated

with the lesions. Patients with lupus erythematosus showed marked improvement with practical disappearance of lesions on smaller doses. In one patient, however, exposure to sunlight caused a flare-up of all patches. In this patient and in two others, results were deemed as poor.

Evidence of systemic effects were noted in several patients and consisted of slight moonface. One of these patients demonstrated some fluid retention; the others gained 4 to 5 pounds. These patients were given 0.5 gm. of potassium chloride four times daily. One patient also developed a secondary infection following treatment of neurodermatitis of his left knee. He was treated with antibiotics. One patient in the series was lost to follow-up. Atrophy of the site of inflammation was occasionally present.

Discussion

It should be noted here that while the doses of triamcinolone acetonide administered to most of the patients in this series were much greater than suggested doses, undue pain or discomfort such as burning were noted in but one case. This improved with subsequent injections. Toxic effects were also extremely rare and, when present, were easily controlled with supplemental potassium. One female patient, who had received a 2 cc. injection for neurodermatitis of the forearm, subsequently fainted on the bus. She was taken to a hospital for treatment and then discharged. Her private physician noted the patient was neurogenic and stated, "She faints quite readily." It is possible that some pain from her injection may have caused her to faint. She received no further treatments.

The results of this study, therefore, would seem to indicate that patients are able to tolerate much greater doses of triamcinolone acetonide than have been heretofore used and recommended. The intralesional injection of higher doses of triamcinolone acetonide than have been administered until now would seem to offer the possibility of greater success in the treatment of severe dermatologic lesions.

Skin atrophy is a consequence that should be considered when medication is administered by the intralesional route. However, in this study, actual evidence of skin atrophy was minimal. In some patients with neurodermatitis, residual irregularity of the skin was noted and could have represented atrophy, but this was not certain. In one instance, a patient with severe multiple keloids exhibited a hemorrhagic reaction in the tissues. This left some pigmentation when the lesions flattened out. There were two cases of urticarial reaction which cleared quite readily.

Summary

Twenty-four patients with a variety of dermatologic disorders often unresponsive to conventional therapy were administered large doses of triamcinolone acetonide by injection directly into or immediately under the lesions. Excellent results were achieved in patients with neurodermatitis, alopecia areata, nummular eczema and leukoplakia. Patients with herpes zoster, keloid formation, lupus erythematosus, infiltrated granuloma and psoriasis also responded well.

Patients tolerate such elevated doses of triamcinolone acetonide well.

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Headache Cure Expenditures

Headache victims in the United States spend an estimated $300 million each year on popular "remedies," according to a new brochure released recently by the U. S. Public Health Service.

"Headache—Hope Through Research" explains some of the causes and types of headache, and reviews the latest treatments known to medical science. The publication also tells of the efforts medical research is making to learn the secrets behind this condition that affects man on an almost universal scale.

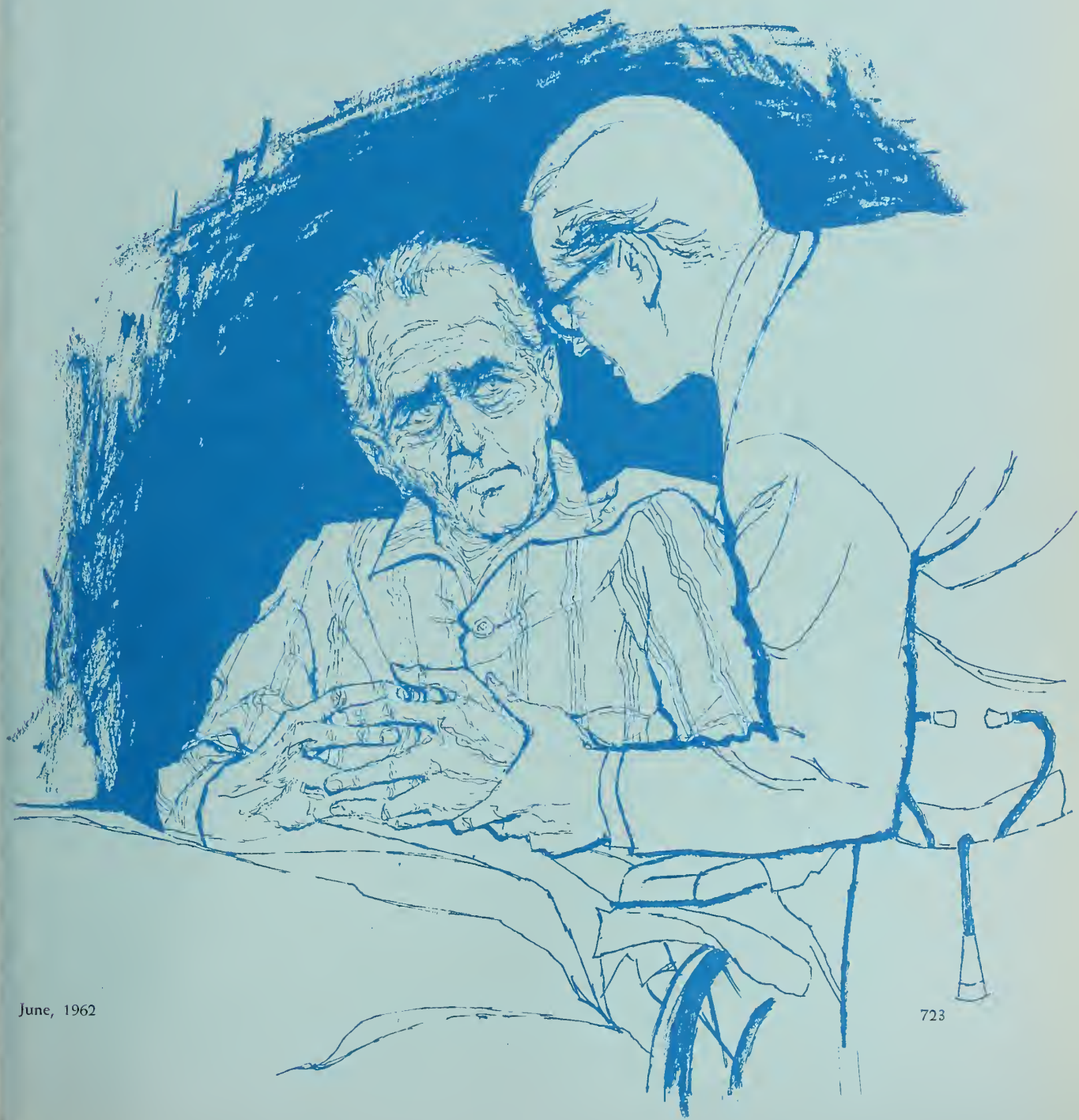
For professional treatment, the Public Health Service recommends that headache sufferers think first of the family doctor.

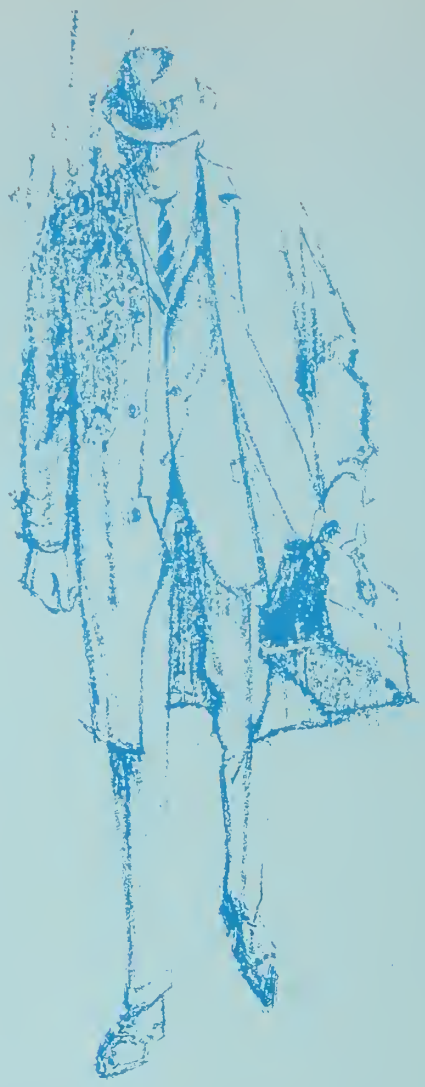
the blue shield **record**

News in the field of prepaid health care for the doctors of Michigan

SPECIAL ANNUAL EDITION FOR MSMS JOURNAL, JUNE 1962

1962 . . . The Change in the Challenge





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1962 — THE CHANGE IN THE CHALLENGE

By Sidney Adler, M.D., President, Michigan Medical Service

It's 1962 and the physicians of Michigan and the nation are being challenged again on a broad front.

The challenge comes from a variety of sources. The Federal government, local governments, the attitude of the populace, the economy, and the physicians themselves all lend their point of view and interest to the problems facing the medical profession.

Health care should not be a forum for emotion, sentiment and power politics.

Who knows more about medical care than physicians? On the national scene, the bureaucrats and do-gooders are trying to push socialized medicine. Why?

Are they primarily interested in the aged, of which there are 17 million?

If so, then why do not all of the bills presented thus far provide for all of the 17 million? This is the essential and determining factor.

BASIC ISSUE CLEAR

The issue is not IF health care for senior citizens should be provided, but HOW it should be provided to cover ALL of the aged. It seems that the social planners are not covering those most in need. I believe that the most pernicious form of discrimination in our country today is not creed or color but of health care.

EXECUTIVE COMMITTEE: Dr. Adler, chairman; James B. Blodgett, M.D.; Allan K. Cameron, M.D.; Mr. J. M. Gillen; G. Thomas McKean, M.D.; Robert L. Novy, M.D.; Mr. Waldo I. Stoddard; Donald N. Sweeney, Jr., M.D.

The needy are being overlooked, not by the physician who has always taken care of them regardless of circumstance, but by the planners who need a wedge to divide and conquer the medical profession.

The Blue Shield performance in providing care for the aged in Michigan has stemmed the tide of government take-over and stimulated interest in other groups to enter the health insurance field. But the storms of opposition still gather.

We of the medical profession must continue to be the pilots, as in the past, of a private enterprise voluntary system of health care wherein the patient has maximum freedom of choice for quality care and still maintain the personal patient to physician relationship.

BLUE SHIELD'S PURPOSE

Change has been the big word to describe 1962 for Blue Shield during the first six months. More change is underway to keep Blue Shield, the valuable instrument of the Michigan physician, a useful, malleable and dynamic tool—a potent force to serve its avowed purpose.

What is Blue Shield's purpose? It can best be defined by stating its goals and principles, first propounded in the '30s. They are:

Adequate coverage for the people of Michigan.

Benefits as broad as possible.

Reasonable cost for the subscriber, achieved through sound management.

Fair return for doctors.

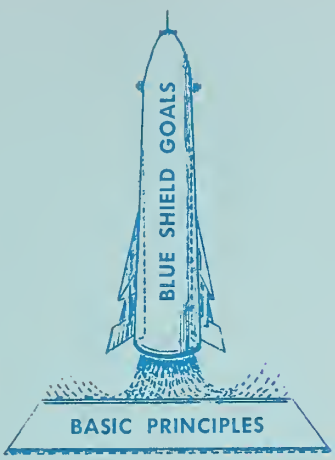
The launching pad for the achievement of these goals has been a set of principles:

Free choice of physician.

Control of medical service benefits by the profession.

Exclusion of profiteering in health protection.

GOALS HAVE SERVED



The medical profession in Michigan has worked under these goals and principles of Blue Shield to make it the outstanding program in the nation.

But, it is becoming a real challenge for the pioneering concept of Michigan Blue Shield's prepayment health care plan to forge ahead and set the pace in its field.

On the national front, with the challenging trumpets from Washington in our ears, Blue Shield is developing its own national contract to cover the aged, calling for uniform benefits at reasonable cost to the 17 million Americans in the 65-and-over category.

A new contract was developed by Blue Cross to cover the aged, and a policy statement was issued recognizing the need for government money for those who cannot provide for themselves.

On the local front, the Governor's Study Commission released a report on its four-year survey, and held public hearings on prepayment health care.

NEW AUTO CONTRACT

The automobile industry signed a new contract paying the full cost of Blue Cross-Blue Shield subscription for its employes. The new benefits under the contract include a rider which gives 365 days coverage and provides for a 50 percent contribution by management toward the cost for retired employes. It also provides for management to pay for certain amounts of coverage for laid-off employes.

Health insurance plans by commercial carriers have been moving briskly into the field pioneered by Blue Shield.

The UAW-CIO sponsored Community Health Association is campaigning vigorously among Ford, General Motors, Chrysler and other workers to persuade them to drop their Blue Cross-Blue Shield coverage and sign up with its panel medicine plan. This is an interesting experiment that only time and the subscriber can evaluate.

NEW EXECUTIVE TEAM

The administration and management of Blue Shield is developing a new executive team. Considerable savings have already been made in the processing of claims; developing a strong research staff to understand the problems of the market, the subscriber, and methods of monitoring; and developing yardsticks to measure the performance of Blue Shield.

How well does Blue Shield render its services? Our aims administratively call for better service to the subscriber and to the doctor, call for an analysis of the past to guide the future in such areas as economics, marketing, utilization and financial control.

Blue Shield stands for broad public service, available to the entire community. One of the best methods of obtaining and maintaining a constant increase in broad benefits and coverage is by quality controls relentlessly monitored, by those best able to understand the problems and best able to administer these functions—the doctors.

COOPERATION ESSENTIAL



Blue Shield is only the means to this end and it is not the end in itself. It cannot attain the goals and aims outlined above without the support and understanding of all citizens concerned—management, labor, physicians, subscribers, in short, the general public. Joint cooperation and understanding are essential.

Blue Shield itself must effect ever better service and coverage through professional self-discipline of utilization, cost, and quality of care, to reach a level never before attained.

More and more, committees within the county medical societies are studying and evaluating the quality of medical care. Through committees with such various names as mediation, arbitration, use-and-abuse, etc., these societies are doing an excellent job in studying utilization and quality of care. The subscriber of Blue Shield here has a voice in expressing his dissatisfaction or misunderstanding on a personal physician-patient relationship.

DOCTORS' SUPPORT NECESSARY

In essence Blue Shield can succeed only to the degree that it secures the active participation and support of the medical profession.

Succeed it must, for health care, whether it is prepayment, commercial insurance, or government-sponsored, cannot be turned back. All claim an interest in providing some type of benefit varying in scope, to the public. We must take a long, critical look at the motivating forces of these purveyors of health care. The voluntary prepayment plan has already shown that it can cover the people of the United States with a greater scope of benefits at less cost, as against other forms of insurance, commercial or government-sponsored.

The trends are obvious. There is no deterrent to further expansion and improvement in prepaid health care. The financial burden of better and better health care will never again fall solely on the afflicted. Under Blue Shield in Michigan, everyone regardless of his medical problem, age, sex or employment, can subscribe to the plan.

HEALTH COSTS STUDIED

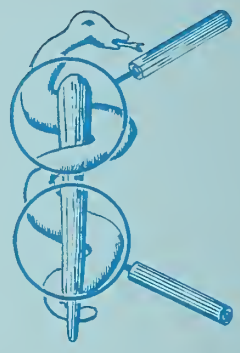
All across the state—indeed, the United States—there has been considerable concern expressed regarding the cost of hospital and medical care. In almost every state there are either studies underway or already completed—all bearing one common purpose, i.e., determining why the cost of hospital and medical care is rising.

The critical issues today are whether prepayment will be able to grow in comprehensiveness; whether it will be able to devise satisfactory forms of protection; whether it will be able to continue to assure value and quality for the money; whether a voluntary system composed of hundreds of separate plans sponsored by hospital associations, medical societies, commercial insurance companies, consumer groups, labor, industry and others—with authority spread over a great number of groups—can meet the reasonable needs of society for prepaid health care. There is an immediate need for developing of national account agreements for Blue Shield across the United States and there must be some uniformity of benefits and premiums. Many large organizations having plants throughout the country seek such agreements.

These issues can be successfully resolved only if the medical profession—the physician—understands the socio-economic problems both on local, state and national levels. Physicians must stand on their own two feet and be counted.

PHYSICIAN MUST ACT

The physician must think, talk and discuss these things with his patients as well as civic groups. And when the physician becomes knowledgeable in voluntary health plans, this is immediately reflected to his patients.



The medical profession has always been one of the leading proponents of good medical care. It manifested this responsibility by developing the voluntary prepayment philosophy through Blue Shield. It is only natural, therefore, that they become the object of much attention from the social planners and philosophers.

Because of rapid expansion of the health care programs as sponsored by the physicians, many other interested groups, some with inadequate background to evaluate professional care, have been very vociferous in their criticisms.

Some of these criticisms may have some basis, but many more are not based on true factual and statistical information.

IN-HOSPITAL COST CRITICAL

Take the matter of medical care costs, for instance. Two-thirds of the cost to patients is in-hospital care. This aspect obviously needs a very critical review and analysis. To be sure, physicians do admit and discharge patients to hospitals. Several of the cost factors during this interim are beyond the control of the attending physician. The failure by governmental agencies to provide parity of cost for their patients, that is, 100 cents on the dollar, also contributes to these costs. It is important that hospital costs be fully accounted for and analyzed. Then all can know whether these spiraling trends are justified or not.

Should voluntary prepayment plans subsidize this cost?

The medical profession has always sat down with all interested parties, the government, labor, management or the consumer, to find the answers through joint cooperation. We have done this only to assure the highest quality of health care in the United States.

Has anyone sat down with the medical profession to discuss the ins and outs of those bills before the Congress on medical care? Are those bills being pushed on the basis of those who need care? Or is this a purely political expedient by self-interest groups?

CHANGE MUST BE CONTROLLED

Change can be a drift, or a directed shift. Let those of us in the profession make certain that the inevitable changes for us are directed by us.

Medicine, economics, politics—for the physician all of these are in dynamic flux in 1962, the year of change and challenge.

In order to clarify further these external influences and internal changes, I have asked the chairmen of the several Blue Shield committees to outline some of their current activities and future plans.

These Board members and committee chairmen of Michigan Blue Shield are dedicated people. They have served well and have accomplished much. I am grateful to them, not only for their support of our profession and of Blue Shield, but for the massive help and unending counsel they have given me in this new and difficult post as President of the Blue Shield Board.

On these pages I want to thank them and all Board members. I also wish to express gratitude to the members of the Council, the officials of the State Society, and the many others who have offered a helping hand in this year of 1962.

REVAMPED ADMINISTRATION PRODUCED THE "NEW BLUE"

By James B. Blodgett, M.D., Vice President, Michigan Medical Service

The administrative functions of Michigan Blue Shield have solidly reflected the factor of "Change and Challenge" in the last 12 months. There has been sweeping executive reorganization with one primary goal. That goal is to provide better service to the two groups whom Blue Shield serves: Our more than three million subscribers, and all of Michigan's physicians who serve our subscribers.

The evidence is piling up at this writing that the "New Blue" is beginning to pay off both for subscribers and for doctors.

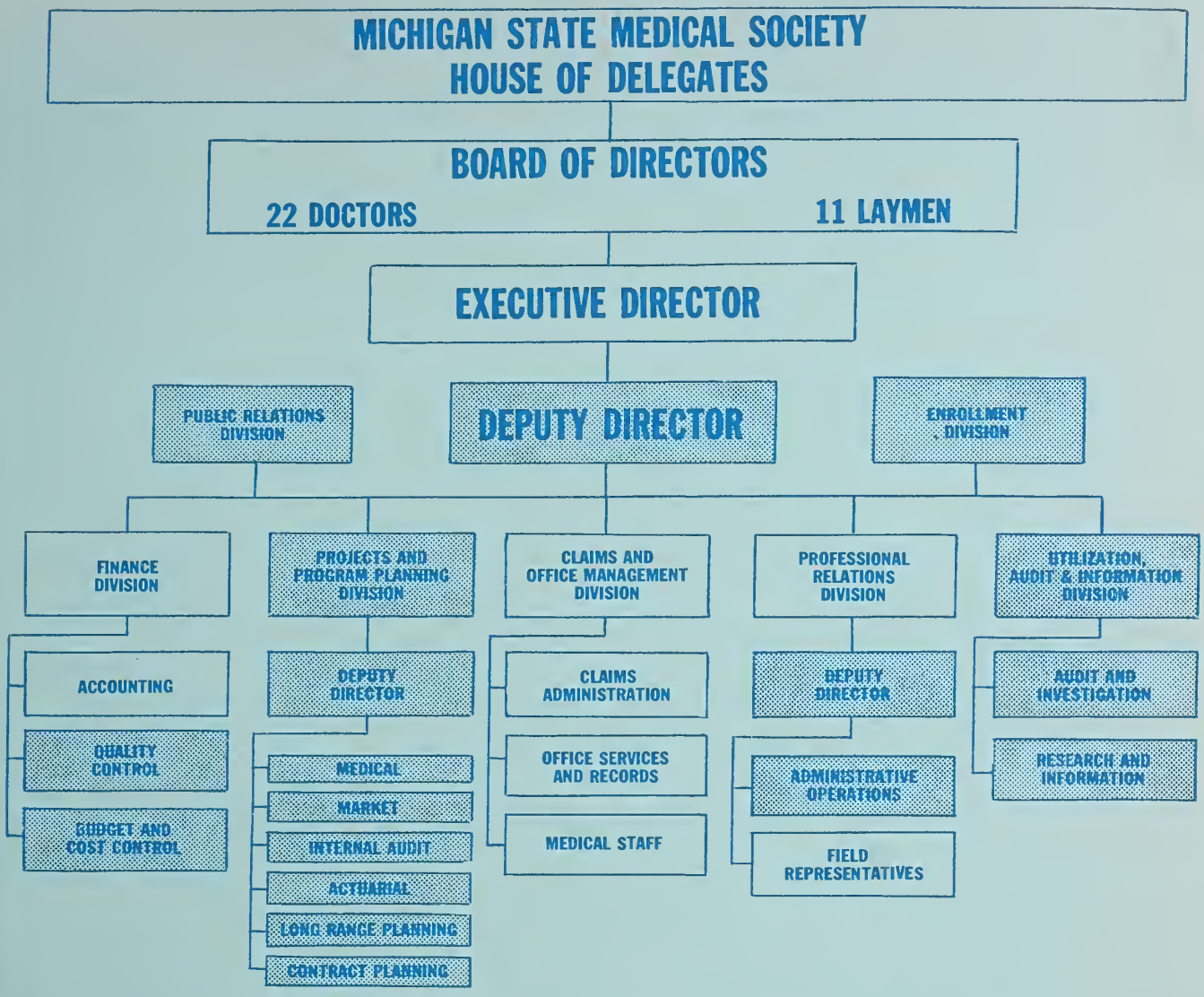
The "New Look" administratively begins with an executive director who took over the post in 1961, and continues with the creation of a key administrative post of deputy director, four new divisions and the reorganization of the three previously-existing divisions.

Completely new divisions now functioning are Projects and Program Planning; Enrollment, created to give staff support to the joint Blue Cross-Blue Shield Enrollment Division; Utilization, Audit and Information; and Public Relations, supplementing and coordinating with the joint Blue Cross-Blue Shield Public Relations Division.

The area of greatest strengthening of staff functions has come in the entirely new Projects and Program Planning Division, which carries a staff of 14 to provide a wide range of services. The Medical Economics Section interprets changes in the economy in terms of the effects on the medical profession and Blue Shield. Market Research determines Blue Shield's market penetration together with customer needs and desires in new sales areas. Internal Audit is geared to make periodic reviews of internal functions for improved efficiency. The Actuarial Section is designed to give professional review to the financing of benefit levels. Long Range Planning evaluates trends in cost, quality and quantity of health care. Contract Planning and Design has the task of coordinating the findings of the Research Section so it can develop the broadest possible benefit pattern at the lowest possible cost.

Reorganization of the existing divisions, Finance, Professional Relations and Claims and Office Management, has rounded out a comprehensive program to promote more effective, efficient administration of all Blue Shield functions.

MICHIGAN MEDICAL SERVICE ORGANIZATION



Reorganization of the Finance Division, for example, included setting up of a detailed budget and a cost-control system which together give management and the Board a month-by-month picture of Blue Shield's financial situation together with accurate projections into the future. Quality control is another important facet of the Division's operation, instituting a tight check on how well the work is done.

The effect of the "New Blue" in just these few months has been a definite strengthening of staff functions and a measurable increase in efficiency, while at the same time effecting a net reduction of 90 persons in the work force. This reduction resulted primarily from a study which enabled a rescheduling of work flow and loads, particularly in connection with the use of the Datamatic 1000 electronic computer.

Of particular interest to doctors, of course, is the fact that the time required to remit

payments on Doctors Service Reports has been reduced substantially. A year ago it required 45 days, on the average, from the time a DSR was received until the check was mailed. Today, through more efficient work flow and more frequent payments that average time has been cut to 25 days. More streamlining is contemplated which will bring the time down to a target of just 15 days.

The enrollment problem, just about the most important consideration in terms of Blue Shield's future, resulted in the creation of an enrollment division in Blue Shield to give the joint operation greater staff support. There is little doubt that however enrollment goes, so goes Blue Shield.

In line with the emphasis on enrollment, a Public Relations Division was established to help improve the climate of public reaction. The Board felt that Blue Shield had special public relations problems and should have its own public relations specialist. The new division is working closely with Professional Relations and every other division in Blue Shield.

At the same time, the specialized interest of utilization and audit was removed from the Professional Relations operation and made a separate division to give emphasis and scope to its work. It is currently expanding its system to reveal actual cases of misuse, over-use, or fraudulent use, even though experience has shown that such cases constitute only a tiny fraction of the total program.

While all these changes have occurred during the past year, it must be noted that the combined efficiency of the operation through good management techniques have not added to the cost of administration. One of the administrative goals of Blue Shield management is to cut the cost of health care, and this can be done only by specialists and experts in the various areas of administration.

The Organization Chart helps show the various changes. Shaded blocks indicate a new division or department.

BLUE SHIELD'S BIGGEST CHALLENGE

By Ralph Cooper, M.D., Chairman, Enrollment Committee

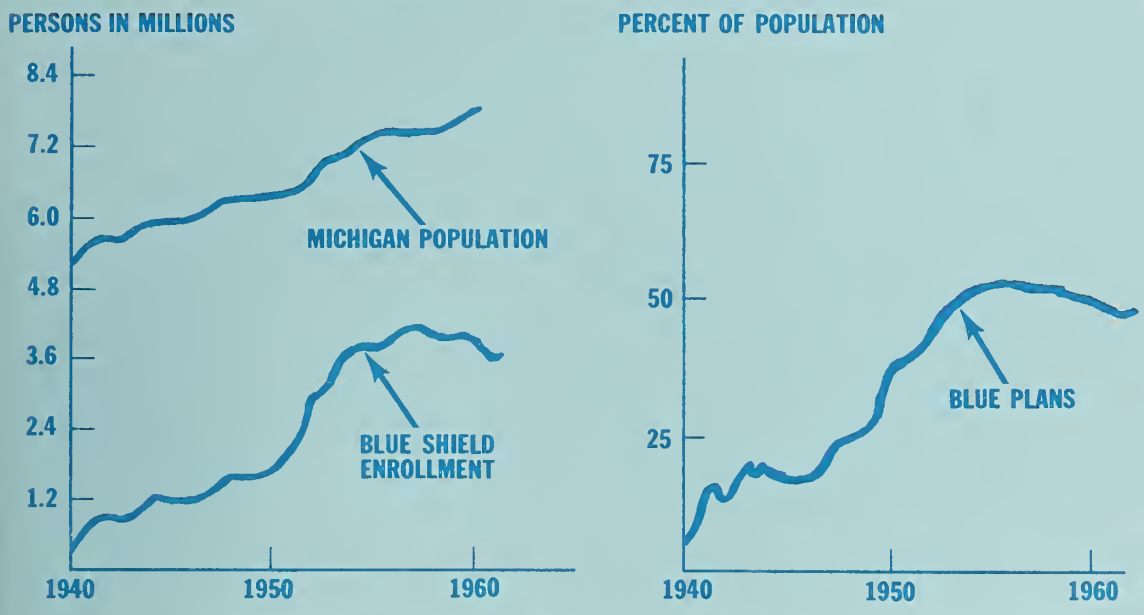
To exist Blue Shield must have enrollment, and maintain that enrollment.

The history of Blue Shield enrollment in Michigan—as in the nation—is spectacular. From its beginning in 1940 to its peak in 1957 it grew swiftly. Michigan was the first plan in America to enroll one million members.

The first to enroll two million members.

It continued its climb until by 1957 it provided protection for over three and one half million of Michigan's people.

COVERAGE OF MICHIGAN POPULATION



ENROLLMENT COMMITTEE: Dr. Cooper, chairman; Mr. Ferry B. Allen; Howard G. Benjamin, M.D.; Hugh Caumartin, M.D.; A. Jackson Day, M.D.; Mr. Malcom L. Denise; Mr. J. M. Gillen; Ernest P. Griffin, M.D.; Robert L. Novy, M.D.; Mr. Jerome Pollack; John W. Rice, M.D.; Donald N. Sweeney, Jr., M.D.; Sidney Adler, M.D., ex-officio.

Today it protects more people than all other forms of health care combined.

But Blue Cross-Blue Shield enrollment has declined in recent years.

The enrollment division is under Blue Cross. The two contracts are generally sold as one package by one division and in Michigan the enrollment in both Blue Cross and Blue Shield has been almost identical.

The decline in enrollment has been traced to several market changes, the principal one was a sharp decline in manufacturing employment where Blue Shield sales are heaviest.

Other contributing factors to the decline were increases in competitor activity, unfavorable publicity during rate hearings and finally, during 1961, the bulk of the State of Michigan employes were lost when the Civil Service Commission subsidized a competitor with a $52.00 annual contribution towards the cost of care.

Blue Cross and Blue Shield jointly support the enrollment effort. To strengthen that activity, the department has been increased in size and quality—an increase of $200,000 annually with Blue Shield paying half the amount.

Not only have new men been added, in many places, but the entire department has been reorganized with strengthened market planning, manpower training, and product design.

Blue Shield too has added its own Enrollment Director to make certain that the effort receives the full Blue Shield support.

Blue Shield has expanded its marketing research and economic analysis activities.

Blue Shield has extended its range on contract offerings.

It has a:

- Comprehensive M-75, which provides the broadest scope of doctor services in the nation;
- Deductible, a widely offered contract providing the same broad scope of benefits as the M-75, with a built-in deduction payable by the patient for certain services to reduce the price, (this has not received great public acceptance),
- And, several contracts for the elderly—A specially-designed Senior Citizen Contract; Continued Group contracts under formal retirement programs, and

Non-Group or Group Conversion Contracts where there is no retirement program.

And this past year has given further flexibility to its list of contracts with:

- An Economy Contract, at a low subscription rate, and with lower benefits than other certificates (few people have purchased this),
- And a Master Medical . . . which takes over where the M-75 Comprehensive policy leaves off, and covers virtually all medical-surgical-hospital expenses through co-insurance and deductible,
- And a proposed National Blue Shield Old Age contract, given support through the National Association of Blue Shield Plans, and enthusiastically endorsed by the American Medical Association.

It is reviewing with care the proposal for a national contract to be offered to concerns with offices in other states.

But, in the final analysis, we who are doctors can be extremely helpful in assisting in the support of enrollment.

We hope you feel that the more you can support Blue Shield, the more you assist both of us in our general appearance before the public.

Patients will ask their doctors for advice. Top executives who are decision makers will come to you. We have known of several instances where a doctor's support in conversation has played a big part in gaining a group contract for Blue Shield.

"PROPER USE" OF MEDICAL CARE

By A. K. Cameron, M.D., Chairman, Utilization Management and Control Committee

Utilization is one of those manufactured five syllable words. It's really an inflated synonym for the simple word "use."

Just as the word has been inflated, so has much that has been said about this subject. There is a widespread misconception on the part of the public as to so-called proper utilization or use of hospital and medical care. One of the major functions of this Committee through Blue Shield is to correct this lack of proper understanding.

This committee, in its two years of close work with Blue Shield management, has seen an expanding system of checks on utilization reveal that actual cases of misuse, or fraudulent use of benefits, has been really minimal and even that mimimum is being steadily reduced.

The major concern of this Committee—and it must be the major concern also of Blue Shield and all physicians—is the fact that at recent rate hearings it was clear a substantial number of people *thought* there was considerable misuse and that this was a basic cause of the need of rate increases.

The fundamental way to attack this kind of situation is by marshalling the facts, communicating those facts and indicating clearly to the public that effective methods are being used to assure that Blue Shield benefits are not misused.

Now fundamentally no one—and that includes the public, the medical profession and Blue Shield—no one disagrees with the premise that each person should have the proper amount of care, but that substantially more than that may become abuse and misuse.

By the same token, and of equal importance—although this is not so widely recognized by the public—is the fact that a patient should NOT have LESS than the proper amount of care.

UTILIZATION MANAGEMENT AND CONTROL COMMITTEE: Dr. Cameron, chairman; F. S. Alfenita, M.D.; Elden C. Baumgarten, M.D.; Rager W. DeBusk, M.D.; Mr. Jerame Pallack; Sidney Adler, M.D., ex-officia.

As a doctor, and as chairman of this Committee, I have heard "utilization" discussed in stern terms—invariably by well-meaning laymen—with the theme that patients should be moved swiftly out of the hospitals.

Moreover, important as "proper use" of medical care is—and much as we desire to eliminate any excesses—we as doctors still have the primary duty of treating the patient. If we are to err, I should prefer—and so would the public once it understands—to err on the side of the patient's welfare with an added margin of care rather than an over-zealous effort to discharge him from the hospital if there is any reasonable doubt about whether it is completely safe. The patient's welfare should always have first consideration over dollars.

This, indeed, is one of the strengths of Blue Shield—to permit the doctor to give his patients all of the care essential to good treatment. As opposed to so-called "over-use" under prepayment coverage, there is documented evidence that among the patients without coverage, there is an alarming percentage of "under-use" and that this even *exists to some extent for those with coverage.*

Without Blue Cross and Blue Shield, there were many patients in moderate and low income areas where full-care had to be denied because personal economics of the patient virtually forced it.

Having said this, however, we who are physicians must also recognize that the public has an acutely sharpened interest in utilization because of the rise in the cost of care which is reflected in Blue Cross-Blue Shield rates.

It is not sufficient to say that this Committee knows that fraud and deliberate misuse of Blue Shield coverage is minimal and that the integrity of the overwhelming majority of doctors is unquestionable.

Blue Shield must document and publicize these facts and show clearly the steps it has taken to prevent and detect possible fraud and misuse. Blue Shield, with the help and guidance of this Committee, has been doing just that and will do so on an expanding scale.

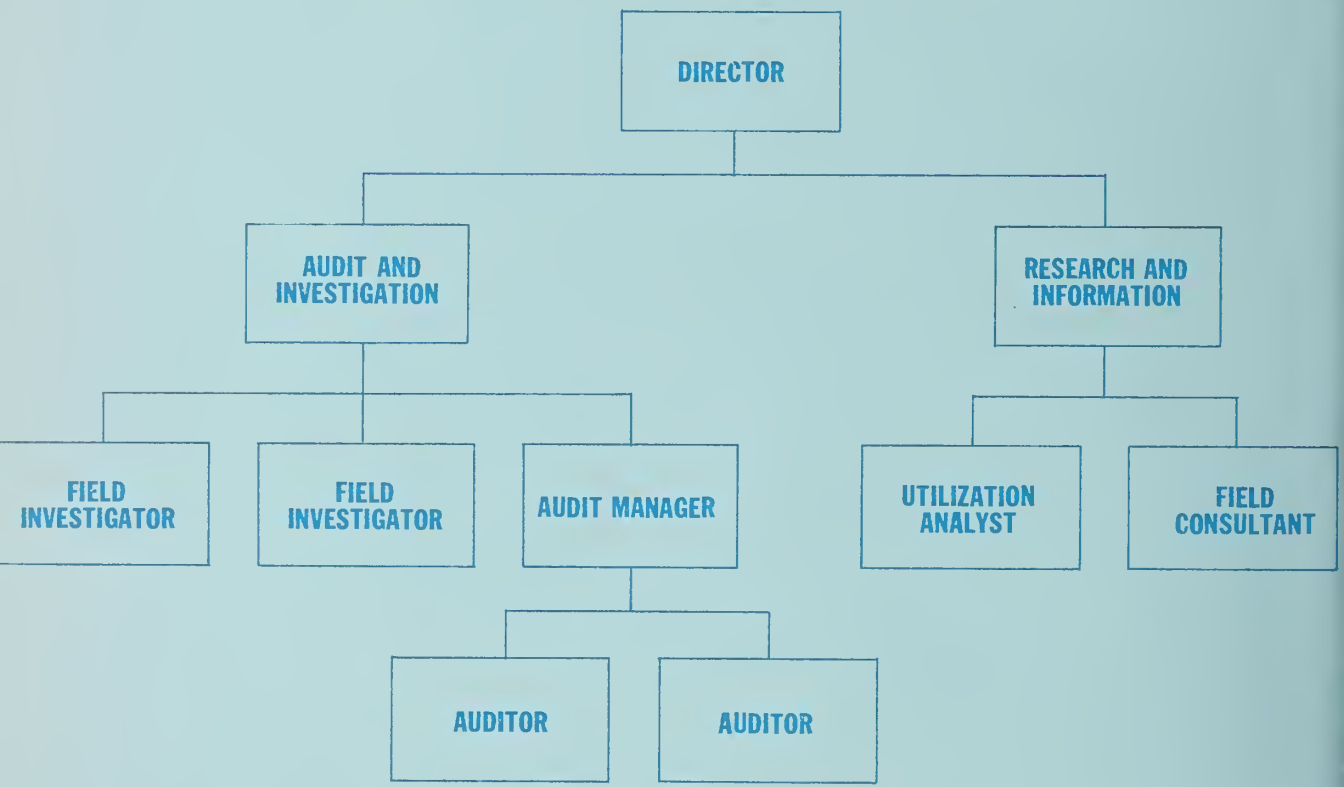
This Utilization Management and Control Committee is made up predominantly of doctors, so the interpretation of statistics and suggestions for utilization control measures will be consistent with the realities of medical practice.

Doctors and hospitals alike are reporting vast amounts of information to Blue Cross-Blue Shield. The combination of an expanded statistical staff and automatic data processing

facilities will provide us with the kind of specific information needed for the profession to review the utilization patterns and make such changes as deemed proper.

Meantime, on the advice and counsel and with complete support of the Committee, Blue Shield has made the study of utilization a full Divisional function, with an expanding staff. There is an Audit and Investigation Department, which through monthly audits of service reports and use of the data processing center techniques, can spot and evaluate possible irregular patterns.

UTILIZATION, AUDIT AND INFORMATION DIVISION



There is also a Research and Information Department which on a broader scale will study and report to the Committee the developing patterns of utilization since obviously use of more services is not evidence per se of "over-use." Medical advances frequently dictate more use of more services. To put an arbitrary check-rein on this would affect the quality of care and be contrary to good medical practice.

This Committee firmly believes that Utilization is not a matter to be controlled by government or third parties. Utilization practices should be reviewed by the medical profession, for only through knowledgeable professional determination can proper judgements be made.

Thus, as chairman of this important Committee on Utilization of the Blue Shield Board, I wish to emphasize that the ultimate fate of efforts to manage utilization—and efforts to assure the public that effective controls are operative—lies with the individual physician, his hospital staff and his county medical society.

Blue Shield can take part to the extent of doing all it can in the areas of benefit design, improved efficiency and aggressive efforts to detect any deliberate abuse.

Blue Shield cannot undertake any program which would involve direct policing of the practice of medicine. The decision to perform or not to perform a medical service still rests with the individual physician. Only medical opinion and hospital staff rules and physician utilization committees can properly influence such decisions.

However, if cost is to be contained and the public assured that their prepayment dollar is wisely used, there must be a conscious effort by committees of county medical societies and hospital medical staffs to exercise effective self-discipline in this area and a willingness of all individual physicians to cooperate, support and abide by recommendations of such medically-oriented programs.

BLUE SHIELD'S "COURT OF EQUITY"

By John W. Rice, M.D., Chairman, Medical Advisory Committee

The year 1962 is indeed the year of "Change and Challenge" for Michigan Blue Shield and for the entire medical profession in the broad field of prepaid health-care coverage.

But to the Medical Advisory Committee, this is nothing new. Challenge and Change is par for the course with this Committee; it is, in fact, its very reason for being.

Made up of 20 doctors on the Board of Directors and aided and backed up by the research provided by the Blue Shield Director of Claims Administration, our committee considers, adjudicates and recommends Board action on matters of fees and policies within the framework of Blue Shield.

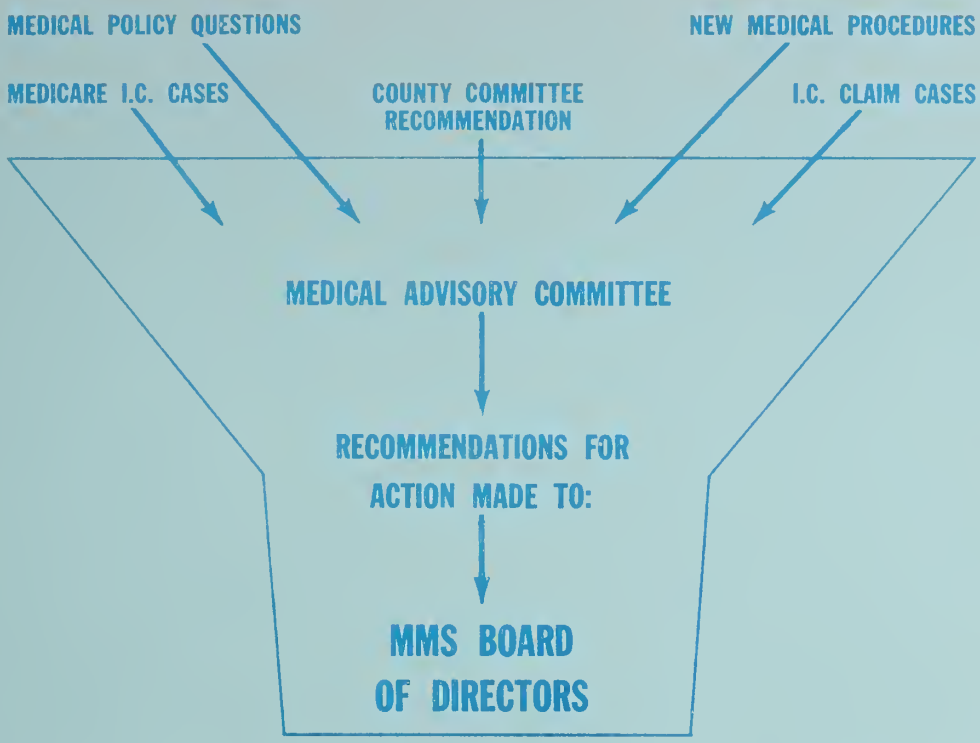
These men, representing many specialities of medicine and years of experience in the field of prepaid medical coverage, comprise a sensitive, well-tuned mechanism in which doctors deal with the problems of doctors in this important area of prepayment.

The Committee as a whole, as you can see from the Chart on the next page, is an "arbiter" and collective advisor to the Board on a broad variety of problems including: Medical policy questions such as what constitutes "unusual medical care" in attending a critical hospitalized case; recommendations from county medical society committees; and "individual consideration" cases.

Our Committee becomes an effective and knowledgeable "sounding board" for physicians to "air their problems" either collectively or individually.

We are also charged with setting appropriate fees for *newly-accepted* procedures until a Relative Value has been determined. We are available to give assistance and advice to

MEDICAL ADVISORY COMMITTEE: Dr. Rice, chairman; Sidney Adler, M.D.; F. S. Alfenito, M.D.; E. C. Baumgarten, M.D.; Howard G. Benjamin, M.D.; James B. Blodgett, M.D.; Robert M. Bookmyer, M.D.; Allan K. Cameron, M.D.; Hugh Caumartin, M.D.; Ralph R. Cooper, M.D.; A. Jackson Day, M.D.; J. S. DeTar, M.D.; Ernest P. Griffin, M.D.; W. H. Huron, M.D.; G. Thomas McKean, M.D.; Robert L. Novy, M.D.; Donald N. Sweeny, Jr., M.D.; Donald W. Thorup, M.D.; John M. Wellman, M.D.; Alfred H. Whittaker, M.D.



the Blue Shield Medical Director as well as supervising the activities of five separate County Advisory Boards currently active (Jackson, Kent, Oakland, Saginaw & Wayne).

In a less specific, but very important area, the Medical Advisory Committee makes a continuous examination of reported services. This is to determine if these services conform with the specifications in the fee schedule, always keeping in mind the fiscal impact our Committee decisions can have.

Our Committee decisions and recommendations to the Board on all matters which come before us parallel two of the basic goals of Blue Shield; namely to provide a fair return to the doctors and to support the profession in maintaining the highest standards in quality of care.

In the past 12 months, the Committee has reviewed and recommended for board action scores of individual matters. They have been reported continuously as they were made in regular editions of the "Blue Shield Record" sent all physicians.

For example, after thorough study consideration and research, a clarification in Blue Shield policy was made in the definition of constant attendance for an anesthesia service. Other representative examples of Committee Review and recommendations included a relative value for peritoneal dialysis; a reduction in relative value of examination of bone marrow material; and deletion from the fee schedules as benefits tubal insufflation, dilation of the cervix and dilation of the female urethra.

PARTICIPATION: BLUE SHIELD LIFELINE

By John M. Wellman, M.D., Chairman, Professional Relations Committee

Solid support and active participation by doctors in the Blue Shield program comprise the vital lifeline to carry it.

This lifeline of physician support and participation has expanded and been strengthened steadily. The increasingly close liaison between our Professional Relations Committee and the Blue Shield Professional Relations Division has, I firmly believe, helped promote the pattern of widening physician participation and support.

The chart on the next page shows the ratio of participating to non-participating physicians.

Although the percent of non-participation is relatively small, it serves to create enrollment and public reaction problems.

There is no question but that the participating physician is the heart of Blue Shield. Without him, Blue Shield could not have come into existence. Without him, it could not survive.

We on the Professional Relations Committee believe that it is most important that there be a better understanding by all members of the profession as to medicine's basic philosophy in its concept of prepayment plans.

The fees the doctors are paid are, in general, in conformity with the California relative value scale and the unit values in our M-75 contracts (while we are waiting for the Michigan State Medical Society to adopt its own relative value scale and unit values). In exceptional cases, fees not covered in this manner are established by the Medical Advisory Committee of Blue Shield.

The doctors recognize the tremendous job of attempting to work out fee scheduling that is ideal for every situation. It is apparent that at times inequities will appear. The

PROFESSIONAL RELATIONS COMMITTEE: Dr. Wellman, chairman; Robert M. Bookmyer, M.D.; The Rt. Rev. Robert L. DeWitt; Ernest P. Griffin, M.D.; Wilfrid Haughey, M.D. (Honorary); W. H. Huron, M.D.; Mr. Ralph C. Hutchins; Mr. Bernard E. Lorimer; Roger B. Nelson, M.D.; Donald W. Thorup, M.D.; Alfred H. Whittaker, M.D.; Sidney Adler, M.D., ex-officio.

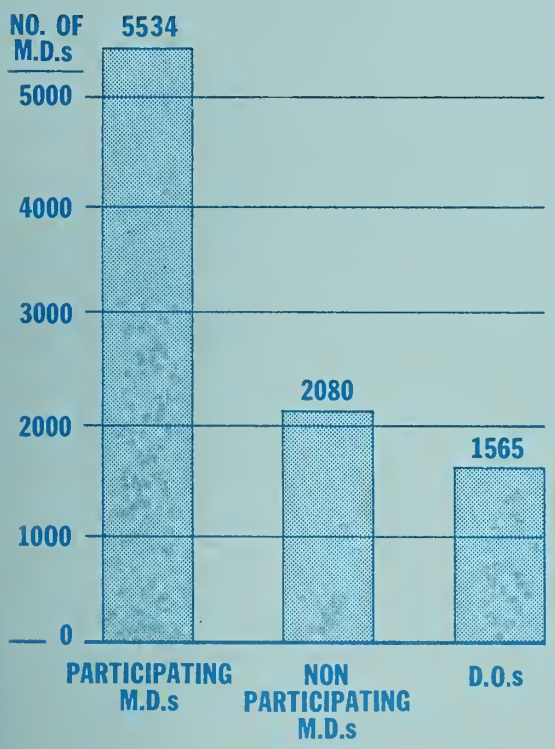
internists and other specialty groups have raised some proper and real questions. The doctors on the Medical Advisory Committee, with the advice and help of the Blue Shield statistical section, are doing their best to find answers to these problems.

Despite all of the problems however, many doctors, many internists, have signed participation agreements. Indeed, both Doctors McKean and Adler, who are immediate past and current presidents respectively, are internists.

Of the M.D.'s in the State whom Blue Shield pays, there are currently nearly 5,600 participating in Blue Shield, with only about 2,000 in the non-participating category. Obviously, this participation ratio must be bettered.

The job ahead in this year of Change and Challenge is to establish and continue a sound program for better communication between Blue Shield and the participating physician.

Blue Shield has been challenged regarding participation. It has been challenged by the office of the Insurance Commissioner, by the McNerney Report, by the Governor's Study Commission, and by those who favor government medicine.



Blue Shield has been challenged by these persons or groups both as to the number of participating physicians and also as to whether the full service agreement is scrupulously met.

Improved, constant, effective communication to apprise the practicing physician of all these things which affect the Blue Shield programs, activities and problems is paramount.

In this respect we have been augmenting and expanding the Speakers' Bureau in Blue Shield to bring our message to everyone concerned. We have been using the services of the members of the Board of Directors of Blue Shield to lend impact by having doctors talk to doctors.

The Committee is pleased to report that such steps are already underway. Blue Shield and the Professional Relations Division have designated a series of presentations on various aspects of medical economics, including the goals and principles of Blue Shield. Members of the Board of Directors or Blue Shield staff members welcome and encourage requests from interested doctor groups to make these presentations.

Secondly, to answer the real need for improving knowledge of Blue Shield among the doctors' office assistants who handle the reports, Blue Shield has developed a formal Medical Assistants' Seminar. The first was held May 3rd. Additional Seminars will be held periodically throughout the State.

As they are scheduled, all doctors in the area will be sent invitations offering them the opportunity to register their medical assistants for the program.

More communications avenues will be opened in the months to come. Blue Shield will continue to face problems. However, with improved two-way communication between doctors and Blue Shield and a realization by all of the stakes involved, both will be in a better position to work together to solve mutual problems.

BLUE SHIELD IN THE BLACK

By Harry S. Rudy, Chairman, Finance Committee

"Change and Challenge"—the underlying theme for 1962 expressed by Blue Shield President Adler—very definitely reflected the activities of the Blue Shield Finance Division with which this Committee worked so closely over the last 12 months.

Biggest challenge—and change—has been the financial condition of Blue Shield. It went from red to black, from a pattern of loss to a pattern of gain in that time. The comparative Financial Statements for the calendar years 1960 and 1961 listed at the end of this article show this graphically. Note, for example, that the Blue Shield Reserve for Contingencies stood at a deficit—in the red by $1,173,779—on December 31, 1960. One year later—on December 31, 1961—the deficit had been erased and the Reserve had climbed to a surplus of $1,385,711. This actually represented a net gain of $2,559,490.

The principal reason, of course, is that an increase of approximately 11% in the Blue Shield rate was approved by the Insurance Department and went into effect in June of 1961. The future course of the financial health of Blue Shield will depend in large measure on the trends of utilization and enrollment.

This change from red to black in finances is possibly the most significant change from a short-term standpoint, but sweeping changes in the organization of the Finance Division itself are of greater import to Blue Shield and to the Finance Committee from a long-range viewpoint.

For example, for the first time in its history, Michigan Blue Shield has established an operating budget which reflects the organization's operating results on a month-by-month basis. The Finance Division has inaugurated a detailed and effective cost-accounting system. This provides a tool for detecting possibilities of cost savings, and also tends to make all Divisions and Departments continuously cost-conscious.

FINANCE COMMITTEE: Mr. Rudy, chairman; E. C. Baumgarten, M.D.; Mr. Franklin D. Carr; Mr. Malcolm L. Denise; Mr. Waldo I. Stoddard; Alfred H. Whittaker, M.D.; Sidney Adler, M.D., ex-officio.

The entire problem of budget and financial planning and control represents an area where improvement and change are continuous. Goal is to give top management and the Board of Directors as much knowledge as possible on the finances of Blue Shield and the efficiency of the operation—as a basis for still further improvement.

The Finance Committee also believes that establishment of internal audit of the Blue Shield financial condition is an important forward step being taken which will assure the Board, the Subscribers and the Medical Profession that the finances are prudently handled at all times. This, of course, always has been the case, as yearly statements by an outside firm of Certified Public Accountants have established. But an internal audit system provides this assurance on a current and continuing basis.

Other improvements in operation involve the quality of claims examination and measurement of the degree of errors. Such qualitative efficiency control is as important as quantitative efficiency control—because it should reduce to a minimum the number of processing errors involving Doctor's Service Reports.

The Finance Committee, working within the framework and knowledge of current economic conditions and trends, has established an investment policy designed to protect investment principal while achieving a reasonable rate of return on investable funds.

Maximum use of available cash, effective and cost-conscious budgeting, and increased efficiency of operation, helped to reduce to 6.98% the percentage of subscriber income needed to cover administrative expense in 1961. This meant 93 cents of the subscriber dollar now is being returned in the form of benefits for members.

Last but not least, on January 1, 1962, the Joint Operating Agreement under which Michigan Blue Shield reimburses Michigan Blue Cross for joint services was completely revised. The joint services involved include such things as use of the electronic computer, enrollment expenses and advertising costs.

Up until the revision, Blue Shield had reimbursed Blue Cross on a percentage-of-income formula without regard for the actual cost of the services performed for Blue Shield. The new agreement provides that payment will be made by Blue Shield on an approved cost basis for actual costs incurred by Blue Cross in behalf of Blue Shield.

BALANCE SHEET

	December 31, 1961	December 31, 1960
ASSETS		
Cash and Investments:		
Cash on Hand and Commercial Deposits	$ 638,566	$ 3,982,312
Savings and Investments	20,160,438	13,156,808
	$20,799,004	$17,139,120
Accounts Receivable:		
Subscription Fees Receivable	$ 277,595	$ 149,934
Reimbursable Programs	376,801	225,927
Miscellaneous	57,319	58,046
Accrued Interest	132,846	68,132
	844,561	502,039
Home Office Property	1,366,500	1,405,957
Total Assets	$23,010,065	$19,047,116
LIABILITIES AND RESERVES		
Liability for Services Rendered	$16,101,418	$14,582,503
Unearned Subscription Fees	4,806,609	5,298,701
Accounts Payable	716,327	339,691
Total Liabilities	$21,624,354	$20,220,895
Reserve for Contingencies	$ 1,385,711	$ (1,173,779)
	$23,010,065	$19,047,116

STATEMENT OF INCOME AND EXPENSES

	Year Ended 12/31/61	Year Ended 12/31/60
EARNED INCOME		
Subscription Fees	$90,486,614	$82,977,311
Veteran Plan Fees	714,919	818,496
Federal Employee Plan Fees	1,218,097	316,956
Medicare Fees	1,034,620	798,817
Total Fees Earned	$93,454,250	$84,911,580
Investment and Miscellaneous Income	541,443	459,897
Total Earned Income	$93,995,693	$85,371,477
INCURRED EXPENSES		
Services Rendered by Physicians	$84,927,217	$81,427,106
Administration Expenses	6,508,986	6,200,419
Total Incurred Expenses	$91,436,203	$87,627,525
Net Gain (Loss) for the Year	$ 2,559,490	$ (2,256,048)

THE GOVERNOR'S STUDY COMMISSION— McNerney Report

By Robert L. Novy, M.D., President Emeritus, Michigan Medical Service

Twenty-two years ago the doctors of Michigan, with the enthusiastic support of the legislature, embarked on an experiment in prepaid medical care. At that time a near vacuum in this field of medical economics existed. The experiment was greeted by overwhelming public approval. Similar experiments were launched throughout the country and the idea of prepaid medical care has become a firm fixture in the American way of life. Throughout these two decades, Blue Shield of Michigan, conceived, developed and underwritten by the doctors of Michigan, has been the pioneer and leader.

As a result of the wide acceptance of the prepaid mechanism in health care, Michigan Blue Shield and its companion organization, Michigan Blue Cross, have naturally come under public scrutiny even as 90 years ago the mushrooming public utilities, the railroads, telephones, electric power, etc., fast becoming a way of American life, came under the scrutiny of the public. The efficiency, quality and cost of these innovations became a matter of concern to the public.

As the result of the public interest and pressures in this new concept (prepaid medical care) Governor G. Mennen Williams, in 1956, appointed a governor's study commission to appraise and evaluate the efficiency with which the prepaid mechanism so avidly accepted by the public was being conducted.

The commission employed Professor Walter J. McNerney of the Department of Hospital Administration, University of Michigan, to conduct the study. A grant of about $400,000 was obtained from the W. K. Kellogg Foundation to finance the project.

The survey was based on a cross section of the population, involving personal interviews with about 1,000 families having 3,500 individual members. It was conducted in September and October 1958, covering the preceding twelve months. Intensive sampling studies were made in the areas critically bearing on the problem such as the admission and stay of patients in different types of hospitals.

Information from other sections of the country was reviewed. It took five years to complete the study of this problem which is far from static.

In June 1961 the first part of the report was released. The complete report in single spaced print occupies a space comparable to that of an encyclopedia.

In mid-January of this year, Judge George E. Bowles, chairman of the study commission, called the first of six public hearings relative to the recommendations of the McNerney report from the groups involved.

WHO ARE THE MEMBERS OF THE GOVERNOR'S STUDY COMMISSION ON PREPAID HOSPITAL AND MEDICAL CARE?

THE HONORABLE GEORGE E. BOWLES, Chairman
Wayne County Probate Judge

MRS. GERALDINE BLEDSOE
Chief, Minority Group Services, Michigan Employment Security Commission

ROBIN C. BUERKI, M.D.
Director, Henry Ford Hospital, Detroit

ALMOND B. CRESSMAN
Member, Executive Committee, Michigan State Grange

EDWARD L. CUSHMAN
Vice President, Industrial Relations, American Motors Corp.

MRS. MARJORIE GARDNER
Records Coordinator, Michigan Farm Bureau

MRS. CHRISTY HAWKINS
Sparrow Hospital, Lansing

NORMAN W. C. HECHT
Michigan Farmers Union

RALPH F. LINDBERG, D.O.
Medical Director, Detroit Osteopathic Hospital

MRS. DOROTHY McALLISTER
Member, Board of Directors, National Consumers League

FRANK L. NOAKES
Secretary-Treasurer, Brotherhood of Maintenance of Way Employes

MAX OSNOS
President, Sam's Inc., Detroit

ROBERT T. ROSS
Manager, Employe Services Department, Ford Motor Co.

E. C. SWANSON, M.D.
Secretary, State Board of Registration in Medicine

HERBERT F. TAGGART
Professor of Accounting, Business Administration School, University of Michigan

LEONARD WOODCOCK
Vice President, United Auto Workers Union

Among other groups that appeared besides Michigan Medical Service, (Michigan Blue Shield) there was of course Michigan Hospital Service (Michigan Blue Cross), the Michigan Hospital Association, the Michigan Association of Osteopathic Physicians and Surgeons,

the Michigan Osteopathic Hospital Association, the Michigan State Medical Society, and many more including other health field organizations and labor groups.

Michigan Medical Service, the Blue Shield of Michigan, told the commission that:

1. The Blue Shield is proud of the dedication of the doctors of Michigan who produced a voluntary plan which has done so much to help all segments of the population including the aged and the needy.

2. Principal reasons that the cost of health care has gone up so sharply have not been because of the doctors' fees, since there has been only one over-all increase in the existing fee schedule in 22 years of Blue Shield's existence, and

3. We reject categorically the McNerney proposal that doctors should be off the Blue Shield Board of Directors. We label this as sheer nonsense for without doctors the Blue Shield becomes just another insurance company, not a plan covering more people in Michigan than covered by all the 800 or more insurance company plans available.

Many of the groups in the health field or in closely allied fields testified before the commission, the majority agreeing in principal with most of Blue Shield's major points.

The Governor's Study Commission is now in the process of writing its report and recommendations, the content of which is anyone's guess. As was the case throughout the study, investigation and public hearings, the Blue Shield is continuing to making its staff facilities and information available to the Commission.

After six years of the Commission's existence, five years of study, and several months of public hearings, the final report will contain material well worth scrutinizing. The best of it will be utilized for the public interest, in the spirit with which the Michigan State Medical Society has pioneered and led in the development of this great economic need of the American people.

THE NATIONAL PICTURE

By G. Thomas McKean, M.D., Board Member, N.A.B.S.P.

During the current struggle to prevent government medicine from inundating the profession, medical leaders have pointed with pride to the strong performance on the part of Blue Shield.

Said Dr. Leonard W. Larson of the American Medical Association:

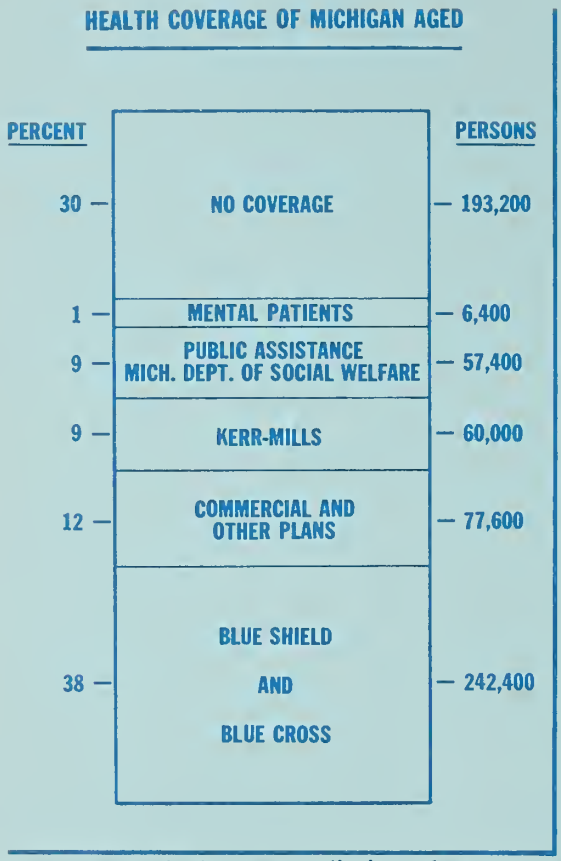
"Today, the physicians participating in the affairs of Blue Shield and in the American Medical Association represent the two largest groups of physicians in the world. They are dedicated to the preservation of the traditions of American medicine and to the desirability of voluntary health care coverage as an important factor in securing those traditions against the encroachment of compulsory government health care insurance.

"Blue Shield and the AMA are two of the most dynamic forces in our nation today. The development of Blue Shield met with medical support because it clearly followed the concept of providing freedom of choice for the individual. Furthermore, Blue Shield plans insisted that they be financing mechanisms only, and they wisely steered clear of controlling, or attempting to control, the insured person or the purveyor of the services.

"Thus, in its few, short years of superb service and phenomenal influence on America's health and economy, the Blue Shield movement has made one of the most significant contributions toward preserving the traditions of American medicine."

It has been outstanding performance. Since Blue Shield first came into being in the United States, some 46 millions of persons have been covered. Adding this to those who have private insurance coverage, 130 millions of Americans now have some kind of health care benefits.

The Michigan record is one of swift growth, too. Founded by dedicated doctors, Michigan Blue Shield, first in successful operation in America, grew from its beginnings in 1940 until it covered nearly half the population of the state by 1958. It was the first plan in the nation to have one million members, the first to cover two million. And today, it is well above the three million mark.



These figures do not apply only to the young and healthy, either in Michigan or across the nation. National Blue Cross-Blue Shield and insurance company figures show that of the 17 million persons aged 65 or older in the United States, 53 percent now have private coverage of health care needs. In Michigan, by 1958 (the latest complete figures available), one-half the aged population had private coverage of health care needs, 38 percent under Blue Cross-Blue Shield and 12 percent under commercial companies.

Early this year, the National Association of Blue Shield Plans announced a national contract for the aged, with special rates made possible through the willingness of doctors to accept a minimum fee schedule and by localizing the operations. This plan would cover surgery, physician anesthesia bills, in-hospital medical care, radiation therapy, weekly doctors' visits to nursing homes, and in-patient laboratory and x-ray services (out-patient and office x-ray in case of accident). Michigan Blue Shield strongly supports the principle of such a national contract.

This aged contract, coupled with a companion national Blue Cross proposal for the aged, is designed to show once more that private medicine is capable of doing much to care for the needy aged.

We believe that the best shield against the pressures for increasing government intrusion is Blue Shield.

America's voluntary health care plans must remain competitive and must continue to expand their coverage to prevent a takeover by government. To the degree that the voluntary plans are able and willing to fill present gaps in coverage, will the private practice of health care resist further government expansion and intrusion.

Frigidity

E. C. Mann, M.D.
New York, New York

THE CAPACITY of the female human being to respond sexually is contingent upon a complex network of interdependent activators. Very broadly, these activator systems are three in number and include the endocrinologic, the somesthetic and the psychic.

Endocrinologic Factors

In lower mammals, the activating role of the endocrines in the production of mating behavior clearly predominates. In such instances, sexual behavior is a function of cyclic elaborations of gonadal hormones. Sexual behavior, of this chemical order, is patterned and stereotyped before, during and after coitus. While the patterns vary according to species, the animal in "heat" presents a characteristically driven picture. Indeed, the derivation of the term "estrous" highlights this behavioral characteristic.[4] In the Latin, the term originally denoted gadfly; however, after it had been observed that periods of frenzy occured in cattle attacked by the gadfly, the word came to connote any condition of periodic agitation. It was not until early in this century that the term came to be used as a synonym for the recurrent periods of "heat" seen in female animals and not until 1923, with the discovery of an ovarian "estrogenic" principle, that "estrous" acquired biochemical definition.

With the discovery in lower mammals of a distinct cause-effect relationship between estrogen and estrous, the temptation among early investigators was to ascribe an analogous hormonal basis for sexual responsiveness in the human female. To their dismay, it became apparent that while female cats and dogs could be desexualized by oophorectomy and resexualized by way of estrogen injections, a similar situation did not obtain in the human species. Since then, a large body of research has accumulated which indicates that this difference in response is one of disparity rather than one of imparity and hinges upon the phylogenetic development of the cerebral cortex. In this connection, it would appear that in all mammals there are subcortical centers directly concerned with the integration of sexual activity. These centers, located in the hypothalamus and upper midbrain are, in lower mammals, primarily activated by the gonadal hormones. In primates, these subcortical centers seem to have acquired some independence from the sex hormone concentration in the blood stream, and to be more dependent on the cerebral cortex for their activation. Thus, with the evolutionary movement from sub-primates to primates, sexual responsiveness becomes increasingly less a function of chemical activation and increasingly more a function of cerebral cortical activation. This upward displacement is most highly developed in the human being where there exists the most marked liberation of erotic responsiveness from hormonal control.[1,2,3,5,10,17,19,21]

The dissociation of erotic responsiveness from hormonal control in the human female is most evident when viewed in relation to sexual urge. While we have no way of knowing whether or not sexual urge is subjectively experienced by lower mammalian females we do know that their sexual behavior is, from a descriptive standpoint, willful. If we assume that willingness or unwillingness to mate is related to an underlying sexual urge, then it is apparent that such an urge, or even the lack of it, is hormonally determined. Female chimpanzees, for example, will accept the mate during the height of genital turgescence, which corresponds to the phase of follicular maturation but, during the luteal phase of the cycle, will fight off the male.[12] Their unreceptive behavior in this latter regard occurs in association with genital deturgescence which, in the light of Gillman's findings,[11] is a positive phenomenon due to the presence of progesterone and not to the absence of estrogens. Such cyclic and biochemically definitive changes in sexual behavior are much less obvious in the human female. Indeed, it would appear that libido, or primary sexual urge, in the human female is relatively unaffected by the gonadal horomones.[8,20,23,24,27] Neither progesterone nor estrogen when given alone or in combination, in large or small doses, have been shown to alter, in any consistent manner, sexual urge in the intact human female. Similarly, several investigators have clearly demonstrated that major changes in sexual urge do not follow in the wake

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of either surgical castration or menopause. Finally, most investigators have found that premenopausal or postmenopausal women who have always been sexually apathetic do not become responsive even on massive doses of estrogen or progesterone.

This is not to say that the gonadal hormones are uninvolved in the overall erotic responsiveness of the human female for, indirectly, they are. While estrogen would appear to have little, if any, effect upon sexual urge, *per se*, its priming action upon the accessory genital organs and, particularly, the vaginal mucosa contributes not only to the development of these structures but to their healthful maintenance. In the absence of such maintenance, atrophy of these structures follows. Thus, to use a familiar clinical example, post-menopausal atrophy of the vaginal mucosa may give rise to marked dyspareunia with resultant loss of sexual responsiveness. The fact that many women following oophorectomy or menopause do not develop such symptomatic atrophic changes may be due to the continued production of small amounts of estrogen within the adrenal glands.

The adrenal glands, in addition to the elaboration of small quantities of estrogen, produce at least five steroids which possess androgenic activity.[7] These androgenic steroids, while produced in greater amounts than the adrenal estrogens, are, in terms of biological activity, much weaker substances than testosterone. Whether or not they play a role in sexual physiology remains a continuing object of inquiry.[17,29] Certainly, exogenous androgens have a marked effect on the clitoris. Many investigators have reported upon the rather striking clitoral changes which occur with the administration of testosterone. These changes consist of clitoral hypertrophy along with marked increase in the vascularity and sensitivity of the organ. While some investigators have postulated that androgens have an additional direct effect on sexual urge[14,28] the available clinical evidence neither warrants nor requires such a claim. Instead, increased erotic responsiveness in the human female following androgen therapy may be quite convincingly formulated in more localized terms of increased end organ sensitivity. Perloff,[26] for example, after closely questioning a large group of women receiving exogenous androgens found that their heightened sexual pleasure was related to augmented clitoral sensitivity and not to any basic increase in sexual urge. Similarly, he found that large amounts of estrogens administered to men resulted in the depression of endogenous androgen formation and a consequent decrease in the sensitivity of the glans penis. The decreased erotic responsiveness reported by such men, again, was found to be a function of diminished end organ sensitivity and not to a decrease in the primary sexual urge.

Somesthetic Factors

While, from a factorial standpoint, it is necessary to differentiate between end organ sensitivity and primary sexual urge, it is important to bear in mind that these two components of erotic responsiveness are operationally interdependent and in normal sexual physiology presuppose one another. Indeed, sexual urge, in the context of normalcy, depends for its activation on somesthetic sexual stimuli which, in turn, originate in erogenous end organ receptors. By far the most important of the end organ receptors are the genital corpuscles. These minute structures represent the specialized, encapsulated ends of medullated nerve fibers and are present in vast numbers in the glans penis and, relatively, in even vaster numbers in the smaller glans clitoris.[6,13] The genital corpuscles are intimately concerned with the reception and, through their afferent connections, the transmission, of somesthetic sexual stimuli. The determining importance of such stimuli in erotic responsiveness can be fully appreciated only with their loss. Bilateral destruction of the ventro-lateral column in the spinal cord disrupts the transmission of these stimuli and results in loss of sexual urge.[9] The dependency of sexual urge upon somesthetic sexual stimuli is even more clearly shown when studied in relation to different types of paraplegia. Post-polio paraplegia, for example, which involves a motor rather than sensory paralysis, has no effect on sexual urge. Those paraplegias, however, which entail the perceptive loss of sensory genital stimuli produce loss of sexual urge. While the loss of sexual urge usually occurs in close temporal relationship to spinal injury,[18] Money has found that manifestations of sexual urge are often sporadically present for some time after the onset of paraplegia, but that in time these tend to disappear.[25] For example, some of his patients have reported libidinous preoccupations or orgasms in their dreams which occurred for varying lengths of time after spinal injury before disappearing entirely. He believes that the gradual rather than sudden loss of sexual urge reported by such patients represents an adaptational period of lag during which their outlook upon the degenitalized reality of their sexual situation changes from unacceptance to acceptance.

My own observations of and interviews with paraplegic patients at Walter Reed Hospital during the Korean War are in keeping with these findings. In

this connection, I vividly recall a young soldier who for several weeks after his spinal transection maintained the morale of the paraplegic ward with his spicy sense of good humor. When not propositioning the nurses, he was having them hang pictures of "pin-up" girls over his bed. Whenever a new nurse appeared on the ward, he would cover himself with a sheet and, surreptitiously, pull on his indwelling catheter and, in the process, produce a reflex erection. His antics in this regard soon got him dubbed by the nurses as "Omar the tentmaker"—an appellation in which he delighted. He periodically reported several "dry" wet dreams to me and, in his general comportment, persistently refused to accept any thought of permanent sexual disability. Within a matter of a few months, however, he appeared to enter into a readjustive transitional phase during which his humor became increasingly less concerned with sexuality and progressively more involved in the nonsexual aspects of life. Although maintaining his refreshing habit of levity, his animation soon seemed to derive entirely from asexual sources. When questioned in this connection, he stated that while he was still occasionally subject to sexual fantasies at the sight of a pretty girl or a shapely leg, his fantasies were now of a fleeting, abstract type which provided him with no personal sense of anticipatory pleasure. From his statements as well as from those of female paraplegic patients, it would appear that fantasies, particularly as they relate to sexual urge, depend for their excitive pleasurableness upon a projected element of self-participation. When this element of participant involvement can no longer be experienced in projection, fantasies, however needful, fail to develop *anticipatory excitation*, a condition which would seem to be indispensable to the development of sexual urge.

Psychic Factors

This brings us to a consideration of the role of psychic factors in the activation of erotic responsiveness. Before examining those aspects of the psyche which specifically relate to eroticism, it is perhaps worthwhile, by way of preface, to discuss more broadly the formative importance of psychological determinants in the development of sexuality. Until recently sexuality, in its extended generic sense, was thought to be a constitutional amalgam of chromosomal, gonadal, hormonal and genital determinants. The basic collaborative research which has been going on in the departments of endocrinology and psychiatry at the Johns Hopkins Hospital during the past eight years has disproved, quite compellingly, this prevalent notion.[15,16,26] In an intensive investigation of a large number of hermaphroditic children, sexuality has been studied in relation to seven components. These components are: chromosomal sex, gonadal sex, hormonal sex, external genital morphology, accessory internal genital morphology, assigned sex and, finally, gender role. These variables have been found to operate independently of one another in hermaphroditism and to occur in contradictory combinations. Thus, in so-called ovarian agenesis, the chromosomal sex and the gonadal sex are usually male, while the hormonal sex and the morphology of the external genitalia are female. At laparotomy, such individuals are usually found to have testes and only cord-like vestiges of the mullerian system. Because of the presence of normal appearing external genitalia, a vagina, and pubescent elaboration of estrogen from the interstitial cells of the testes, such patients usually present a normal "female" appearance, their true condition being diagnosed, usually, in consequence of their failure to menstruate. These "simulant females" having been unequivocally raised as girls, have been found to be no less feminine from the standpoint of their psychosexual orientation than their more appropriately "sexed" female counterparts. More striking are those hermaphroditic individuals who have successfully grown into a gender role which is flagrantly contradicted by the predominant appearance of the external genital organs. Such individuals, say a little girl with an enlarged clitoris so penis-like as to be supplied with a urethra, or a little boy with a clitoral-sized penis further feminized in appearance by the presence of a bifid scrotum, have been found to be feminine or masculine in proportion to conflict or lack of conflict as to their gender role. Conflict or the lack of it in this regard is intimately related to the individual's belief in the sex of assignment. If the hermaphroditic child is consistently and unequivocally reared according to the sex of assignment, then there usually develops a thoroughgoing conviction of gender. So indelible is this conviction that by eighteen months of age, gender role can be changed only at the risk of serious psychologic sequellae. By middle childhood, gender role is so irreversibly established that change of sex by edict should never be undertaken.

Of corroborating interest in this connection is the fact that voluntary requests for change in the sex of assignment on the part of older hermaphrodites are extremely rare and, when made, have appeared to stem from the defective establishment of gender role. When, as is much more usual, the reverse obtains and

gender role is well established, there is concomitant certainty as to erotic role. Accordingly, rehabilitative surgery is aimed at the construction of serviceable and erotically sensitive genital organs which correspond to the gender role which has been established or, in the case of recognized hermaphroditic infants, is to be established. Experience with those individuals who, on the primary basis of a well established gender role, have undergone surgical feminization of male genitalia or masculinization of female genitalia has been most rewarding. Many have thereafter entered into quite satisfactory marital and sexual adjustments.

In the light of the foregoing, it is apparent that the erotic role of an individual, in the largest measure, is determined by his or her gender role. Gender role, in turn, is neither innately established at birth nor does it emerge in automatic fashion as though determined by the chromosomes, gonads or other somatic factors. Instead, the emergence of gender role is a cumulative process which grows out of life experiences. As such, it is an acquired role which entails the acquisition of a perspective through which self-identity and identity of self in relation to the other gender is learned.

Self-identity involves, among other things, the identification with and adoption of a masculine or feminine role. To the extent a given individual identifies himself or herself with men or women, to that extent will he or she become capable of comfortably assuming a male or female role. Failure to identify with the sex of assignment is, as we have seen from observations of hermaphroditic children, less a function of somatic factors than of psychological factors. The nature of the psychological factors which enter into identificational failures are complex and variable but, generally, are related to overdetermined relationships existent between the developing child and one or both parents. Thus, to use an oversimplified example, a little girl, because of the rejecting or hostile attitude of her mother, may renounce her mother by refusing to identify with her. This refusal to identify, depending upon the emotional circumstances, may vary as to degree and as to the form in which it is expressed. Our little girl, for instance, might renounce her mother and the feminine role which mother represents by assuming the sexual identity of father and becoming a homosexual. Or, more tangentially, she might renounce only certain aspects of her femininity. In this connection, I am reminded of a patient who recently consulted me regarding long-standing sterility which she felt was psychologically determined. She related her infertility to an almost phobic fear of motherhood which, so she thought, derived from her fear of being the kind of mother to her children that her mother had been to her. In this regard, she stated that childhood for her and her four sisters had been frightfully unhappy as a result of her mother's rejective and tyrannical behavior. She described her mother as having been an extremely morose individual who was aggressively contemptuous of both marriage and motherhood. When not disparaging her husband and her daughters, she was invoking the day when her husband would be dead and her daughters no longer her responsibility. In her brighter moments, she merely bemoaned the prospect of another pregnancy, or failing this, her past folly in ever having become pregnant. As her daughters grew older and left home, each pursued a course which would appear to be significantly related to the obviously defective mother-daughter relationship. One became a practicing lesbian in Greenwich Village, one became a nun, one became an habitual aborter, one committed suicide and one became a sterility problem.

While the foregoing example is gross, it illustrates, in almost caricatured form, the variety, intensity and circuity of ways in which the feminine role or one aspect of it may be renounced. In this particular example, all five daughters, it would seem, were unable to affiliate themselves with the "feminine" role as represented by their mother. Their disaffiliative tendencies were most marked in the area of motherhood which each avoided either through the mechanisms of celibacy, homosexuality, and self destruction, or through the less obvious psychosomatic mechanisms of sterility and habitual abortion.

Just as femininity may be compromised by a faulty mother-daughter relationship so may it suffer as a result of a defective father-daughter relationship. Indeed, the father's relationship with his daughter establishes many of the patterns which his daughter will follow in her subsequent relationships with men. If, for example, she is able to relate warmly and closely to him the chances are that she will be able to relate warmly and closely to male peers. If, on the other hand, her father is self-distant, abusive or intimidating, her subsequent relationships with men are likely to be proportionally more difficult. Negative, ambivalent, or contemptuous feelings toward the father are often transferred to men, in general, and, following marriage, to the husband. Feelings of this negative order interfere markedly with the wifely role, particularly as it relates to eroticism.

The erotic role of the female, as previously discussed, is but one aspect of gender role. The easy or uneasy flexibility with which the different feminine roles are assumed reflect the degree to which femininity, in its global sense, has been established. Accordingly, the problem central to feminine adjustment revolves around woman's ability to alternately play the varied roles of wife, mother, sexual partner and, often in our culture, career woman in such an integrated way as to feel that, in the shifting process, she is being herself. While throughout their formative years most girls are exposed, by precept and example, to those feminine roles which are nonerotic in nature, they usually have had little exposure to the erotic role. What knowledge they have of this role is frequently incomplete and, depending upon their familial and social backgrounds, more or less invested with inhibitory elements of mystery, misadventure, fear, forbiddenness and pain. In consequence, they often enter into marriage somatically equipped but psychically unprepared for the sexual role which they must assume. In this connection, close questioning of any large sample of erotically responsive married women will reveal that the great majority did not become erotically responsive to an orgastic degree for a period of months and, sometimes years, after marriage. Closer questioning of such individuals usually reveals that the primary obstacle to erotic responsiveness derives more from the area of sexual anticipation than from the area of sexual participation and that sexual anticipation is less a function of foreplay in the physical sense than of foreplay in the emotional sense.

Vaginal vs. Clitoral Orgasm

Such statements coupled with those of women who never overcome their erotic unresponsiveness indicate that sexual urge is activated by *anticipatory* sexual excitation, and the orgastic fulfillment of this urge, by *participatory* sexual excitation. While both phases of sexual excitation are complementary and, in uninhibited erotic responsiveness, sequentially and conjunctively related, anticipatory excitement is of dominant importance. Indeed, in the absence of some degree of anticipatory excitation, somesthetic genital stimuli arising out of sexual foreplay or of sexual intercourse are virtually without erotic stimulus value. It is only after a certain threshold level of anticipatory excitement has been reached that genital stimuli become erotically invested. Once this threshold is reached, participatory excitement leading to orgasm becomes possible. In the presence of a high level of anticipatory excitation, there usually develops a proportionately high level of participatory excitation which culminates in a so-called vaginal orgasm. If, however, anticipatory excitation remains at subthreshold levels, participatory excitation comes to depend less upon cortical potentiation and more upon somesthetic stimulation. In such instances, the achievement of orgasm may require extra-coital stimulation of the clitoris—whence the term clitoral orgasm.[22]

Sexual Inhibitions

Those individuals who are unable to develop high levels of anticipatory excitation are usually unable to do so as a result of psychological inhibitions. The different types of sexual inhibitions which may operate in the obstruction of erotic responsiveness are legion. They vary from deep-seated expressions of personality malformation to relatively superficial and transient suppressions. Frequently, they are conditional and are operative only under certain circumstances. One patient of mine, for example, is incapable of orgasm under curiously specific circumstances. These circumstances are semantic in nature and are related to her revulsion over her husband's impish tendency to verbally "vulgarize" the sexual act. For instance, if her husband on leaving for work in the morning, facetiously tells her to rest up because he is going to "lay" her that night, the patient is completely thrown, and spends the rest of the day, disgustedly muttering to herself "I'm gonna get laid, I'm gonna get laid." By evening, try as she might, she is unable to achieve orgasm, whereas in more romantic and less predatory associational contexts she has no difficulty whatever in achieving complete orgiastic sexual satisfaction.

Just as negative associations may activate inhibitions and, in the process, raise the threshold for anticipatory excitation, positive associations may deactivate inhibition and in the process lower the threshold. In this connection, I am reminded of a severely neurotic patient whose whole life was built around an exaggerated sense of controlled orderliness and who would become quite apprehensive whenever her husband made impromptu sexual overtures toward her. The tension developed was of a sufficient order to preclude orgasm. She soon discovered that her tension could be circumvented by having sexual intercourse on a prearranged basis. By allowing herself time to prepare associationally for the sexual act, she was able to reduce the inhibitory threat of spontaneity. In this way, and in this way only, was she able to achieve orgasm.

The manner and degree to which synergistic or asynergistic associations enter into sexual excitation vary according to the psychological make-up of the individual. Not infrequently, specific psychic associations are essential to sexual responsiveness and, if consciously suppressed, result in frigidity. Often the association, or in psychiatric parlance, fantasy, is abhorrent to the patient but nevertheless essential to her orgiastic fulfillment. In this connection, I am reminded of a minister's wife who, having long since innured herself against the pleasures of the flesh, was capable of orgasm only if, during the sexual situation, she imagined herself being bound and being raped. Such a fantasy, however distressing it may seem to the patient, represents but a circuitous psychic device designed to bypass a deep-seated sexual inhibition. In this case, the patient, being unable to dramatize herself psychologically in the sensual role of a willing and active sexual partner, utilized an imaginative device which by temporarily removing the taboo elements of sexual willfulness and activeness allowed her to achieve orgasm.

While some patients, as the one just described, are able to invoke or indulge certain fantasies to circumvent sexual inhibitions, others are more inflexibly dominated by all-encompassing sexual inhibitions. The manner in which this dominion is exercised may even entail the use of reinforcing psychosomatic mechanisms. Some patients, for example, perceive the sexual situation as being so threatening that they translate their sexual anxiety into the somatic idiom of vaginismus. In the process, they are effectively prevented not only from the development of anticipatory sexual excitement but of participatory sexual excitement as well. Occasionally, the somatic compliance occurs secondarily rather than primarily. That is to say, sexual excitement to the point of orgasm occurs only to be followed by expiatory psychosomatic symptoms such as post-orgasm nausea and vomiting or post-orgasm migraine headache. Individuals so predisposed, paying as they do such a painful price for their sexual pleasure, soon develop the capacity to concentrate consciously upon non-sexual thoughts during sexual intercourse and thereby avoid orgasm and its attendant psychosomatic sequellae.

This latter group of patients are instructive in that they do consciously what many frigid patients do unconsciously. Indeed, most frigid patients, when discussing their sexual disabilities, complain of being markedly predisposed to non-sexual distractions during the sexual situation. The sound of a neighbor's radio, the tobacco smell of her husband's breath, or the sudden thought of an undone domestic chore are but a few examples of distracting stimuli which in normal sexual excitement are relatively unnoticed, but which in the frigid patient are compulsively attended. Coupled with and subsuming this tendency is the less obvious tendency to selectively inattend erotically invested thoughts and feelings. Together, these two psychic maneuvers effectively prevent the development of sexual excitation. Since these inhibitory devices are unconsciously determined, individuals so predisposed generally regard their sexual unresponsiveness as stemming from sexual disinterest, when in actuality their erotic unresponsiveness is as defensive and purposive as that seen in the individual who, being subject to post-orgasm migraine headaches, willfully abstracts herself from the sexual situation by consciously invoking non-sexual thoughts and suppressing her sexual feelings. Whereas, to the one, orgiastic pleasure entails a feared psychic reprisal; to the other, it entails a feared physical reprisal.

Why an individual comes unconsciously to regard sexual excitation as dangerous or something to be avoided is usually related to deep-seated associations which link sex with feelings of guilt, shame or fear. These fused associations which imbue sexual impulses with painful feeling tones arise out of learned, early life experiences and continue to operate in later life at largely unconscious levels. Their inhibitory power is experienced consciously through the persuasive forcefulness with which they compel the sexually tempted individual to consult her fears rather than her desires.

Depending upon the psychologic make-up of the individual, these associations lead to inhibitory defenses which, in terms of impregnability, may or may not be completely successful. Frigid women with the obsessive type of personality make-up, for example, are often so rigidly defended against guilt-laden sexual feelings that they go through married life ritualistically entering into sexual activity without ever experiencing or consciously missing any degree of sexual excitation or orgiastic fulfillment.

The so-called hysterical character, on the other hand, is far less successful in effectively blocking the expression of sexual feelings. In such individuals, the inhibitory associations which link sexual feelings with feelings of guilt, while effectively preventing sexual excitation in conventional sexual situations, are inadequate in their overall containment of sexual feeling. Indeed, these patients are most remarkable in that much of their sexual feeling, being blocked from genital expression, spills over, as it were, and

becomes associated with non-sexual areas of expression. As a result, these women tend to sexualize non-sexual situations and to desexualize sexual situations. Their tendency in this regard renders their behavior toward the opposite sex paradoxical, in that they are, at once, seductive and unseducible. Their teasingly suggestive approach to men, however glaring, is curiously unwitting, and any response in kind on the part of the man is perceived in emotional terms ranging from surprise to threat. Their "fire and ice" modalities have served, in point of unredeemed provocativeness, to confound and exasperate the Don Juans of the world and, in point of clinical contradictoriness, to confuse and dismay not a few obstetricians and gynecologists.

Usually, these patients appear in the consultation room fetchingly sheathed in low cut, hourglass dresses. Off-color finger nail polish, an exotic perfume, highly spiked heels and perhaps an ankle bracelet are also frequently in evidence. Despite their sensual mien, their most frequent complaint is frigidity. On the examining table, while waiting for the doctor to appear, they not infrequently will assume an almost cheesecake pose and, perhaps, light up a cigarette. Their mannerisms in this regard resemble preparation for bed rather than preparation for a physical examination. They tend to sexualize the pelvic examination, usually in subtle ways but often quite obviously and to the complete discomfiture of the doctor. In this latter connection, one of my obstetric colleagues, while examining the adnexae of one of these patients asked whether "it hurt." Her reply was a cooing, "No—it feels good."

Despite the transparency of such eroticized behavior, these patients, in the largest measure, are oblivious to their tendency to sexualize non-sexual contexts. The types of non-sexual situations which tend to be sexualized are myriad and vary according to the situational contexts in which the patient finds herself. One such patient of mine, for instance, during the third trimester of her last pregnancy, recurrently complained of having to pass men on the street. When asked to elaborate, she replied that her protruding abdomen was visible to these men and that their perception of her pregnant condition was a source of acute embarrassment. When asked why being pregnant was so embarrassing, she replied, "Because they know what I did to get this way!" Following this patient's delivery, her tendency to sexualize the non-sexual migrated to the breast-feeding situation which, in short order, also became acutely embarrassing to her. Here she would come very close to orgasm whenever her infant was placed at her breast.

Such patients illustrate in dramatic fashion how inhibited sexual feelings tend to seek, and often find, expression in non-genital outlets. Usually, the displaced expression of inhibited sexual feeling is of a more disguised sort, taking the psychosomatic form of such symbolized bodily complaints as dizziness, faintness, globus hystericus, pruritus, and so on. Occasionally, however, the displaced expression of blocked sexual feeling is complete and relatively undisguised. I recall one such patient, a pianist, who when playing Mendelssohn, would frequently have a spontaneous orgasm. In time, spontaneous orgasms in this musical context became routine and the patient, a rather self-disciplined spinster, came to regard them as willed expressions of mental masturbation. In consequence, she became quite guilty, phobically avoided the piano, and entered the hospital for psychiatric treatment. Very briefly, history revealed her to have been very much and unilaterally in love with her music teacher. It was following his unexpected marriage to someone else a few years before that the spontaneous orgasms had begun. The psychodynamics involved are self-evident and indicate both the distortive and determining potential of psychic factors in erotic responsiveness.

Treatment

By way of preface to some closing remarks regarding the management of frigidity, I might, to pointed advantage, add an anecdotal postscript to the case history just cited. Shortly after the patient's admission to the hospital, I was called upon by my professor of psychiatry to interview the patient in front of a small group of third-year medical students. The professor attended the interview and, as was his custom in teaching situations, told the students that they were free to interrupt and question the patient themselves, should the need for clarification arise. With this understanding in mind, I began the interview by asking the patient what brought her to the hospital. Her answer was that she masturbated while playing the piano, whereupon, one of the more literal-minded medical students became puzzled and asked the patient how masturbation while playing the piano was physically possible. The professor, answering for the patient, fixed the student with an exasperated stare and then replied: "The answer is obvious, she was playing by ear."

Facetious as his remark was, it is nonetheless a telling indictment of the medical tendency to regard

sexual arousal in an overly mechanical light. While somesthetic stimulation is an important and integral part of sexual responsiveness, somesthetic genital stimuli become erotically invested only in the presence of catalytic psychic stimuli. Treatment, accordingly, which aims solely at the mechanistic, whether in the form of increasing the amount of clitoral stimulation or increasing end-organ sensitivity with androgen therapy, is usually of little or no avail. For therapy to be effective, some modification in the psychic impediments must be effected. To determine the nature of the psychic impediments requires time and effort on the part of both patient and physician. Occasionally, the psychic difficulties are so deep-seated and the symptom of frigidity so inconsequential to the patient that it is best to leave well enough alone. On the other hand, those patients presenting themselves with a primary complaint of frigidity and who are extremely unhappy as a result of their symptomatology deserve the best efforts of their physician. If after hearing the patient out the doctor feels that the problems involved are beyond his therapeutic inclinations or resources, he should by all means refer her to a psychiatrist interested in the problem.

In many instances psychiatric referral is neither necessary nor desirable. This is particularly true of recently married women whose frigidity would appear to stem from unadjustment, rather than maladjustment, to the sexual role. Not a few patients, for example, are erotically unresponsive as a result of their misunderstanding of the sexual role and how it is played. Some, having acquired the mistaken notion that sex is primarily for the enjoyment of men, enter into marriage with no expectation of sexual self-pleasure. Viewing their sexual role in a dutiful or obligatory light, they tend to be submissive rather than receptive to sexual overtures and, in consequence, remain sexually unawakened. Their difficulties in this regard are often compounded by the husband who because of sexual inexperience, ineptitude, or inhibition is unable to provide his wife with sufficient stimulus value to elicit in her an awareness of her own erotic potential. In such instances both husband and wife should be seen in separate sessions during which the sexual situation should be discussed in detail. The discussions with the wife should include instruction in the female anatomy and sexual technique but, more important, should aim at effecting attitudinal changes which promote a desire toward sexual self-expressiveness. The sessions with the husband are often more important than those with the wife inasmuch as in the normal course of events it is the husband who, without recourse to doctor or marriage counselor, "teaches" his wife to become erotically responsive. Since sexual attitudes are more caught than taught the "teaching" must be of an empathic type which tempts the wife into sensual reciprocity. Some husbands find it difficult to communicate at this intimate and consensual level and, instead, contribute to their wives' frigidity through their own self-distant sexual behavior. While going through the motions of sexual foreplay their overtures are so perfunctory or so ritualized that they are without the very necessary element of aroused and arousing spontaneity. Added to their low-voltage sexual technique is an insulating inability to translate sexual union into sexual communion.

At times, the husband's difficulty is of a less unilateral sort; he is able to initiate sexual arousal in his wife but, because of premature ejaculation, stops short of bringing her to orgastic fulfillment. If this is a recurrent phenomenon the wife soon associates sexual excitement with tension, producing feelings of unfulfillment, and in the process defensively suppresses her own eroticism.

The doctor, particularly the obstetrician, who frequently has occasion to maintain close contact with such couples during their child-bearing years, can often be of considerable assistance in helping them help themselves to find a more satisfying sexual adjustment. By getting to know something of the personality make-up of both wife and husband and by acquainting himself with the nature and extent of their sexual problem, he can, in conjunction with routine obstetrical and gynecological office visits, often guide the couple into an increasingly satisfying sexual relationship. The manner in which he guides depends upon the particular problems involved. Not infrequently, therapy will take the form of keeping the issue of sexual disability alive. Some women, for example, find early in marriage that they are only capable of "clitoral" orgasm. After a period of time during which they are unable to achieve "vaginal" orgasm they often settle upon a fixed routine in which they are brought by their husbands to orgasm immediately either pre-coitally or post-coitally through mechanical stimulation of the clitoris. Such an arrangement, while providing some measure of mutual sexual satisfaction, is, at best, only a partial solution. This is not to say that clitoral orgasm is to be deprecated, for clitoral orgasm is often in the early months of marriage a precursive experience which in times leads to and is superseded by vaginal orgasm. As such it frequently represents a preliminary stage in the sexual awakening of the wife. All too often, however, the transition is incomplete with orgastic fixation occurring at the clitoral level. In that event, the clitoral orgasm, instead of being used as an extracoital means to a coital end, becomes, as it were,

dissociated from coitus. In the process the goal of sensual synchrony is lost and sexual intercourse becomes little more than mutual masturbation.

While this type of impasse may be due to complex psychological factors which require definitive psychotherapy, it frequently represents premature acceptance on the part of the couple of a solution which is far short of their adaptive abilities. Indeed, many couples, as a result of initial difficulties in sexual adaptation, accept too readily sexual half-measures. Rather than continue their attempt to resonate with each other in the sexual setting, more by default than defeat they tend "to go it alone" together. Their failure to deliver themselves into the sensual keeping of each other serves to fix sexual relations at an autoerotic rather than bierotic level and to render their adjustment to each other more disaffiliative than affiliative.

Often, disaffiliative tendencies in the sexual area are extensions of disaffiliative tendencies in nonsexual areas. One patient of mine, for instance, related her sexual difficulties to her husband's habit of relative nonparticipation in shared experiences. At the dinner table, for example, instead of leisurely enjoying a meal together he would rush through the entree in anticipation of the dessert and then rush through the dessert in anticipation of his coffee. Such a tendency frequently has less to do with complex psychological problems than with unthinking self-interest. As such it is a tendency which, in the cause of marital unity, should be struggled with and overcome.

Indeed, it is through the recognition and modification of discordant reaction patterns that conjugal growth and adjustment occur. Often, the process of perceiving and adapting to the sensitivities of one another in nonsexual areas is a necessary condition to adaptation in the sexual area. The doctor who is mindful of this can often, by adding his guidance to the renewed adaptational efforts of the frustrated couple, lead them from the rut of incompatibility. In the process, which is often lengthy, he should keep their motivation current by reminding them that their sexual adjustment must be earned before it can be enjoyed.

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Cholecystography and Cholangiography

A Surgeon's Review

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THE SURGEON and the radiologist are closely interdependent in the diagnosis and treatment of patients afflicted with biliary tract abnormalities. The clinician must keep abreast of the developments in cholecystography and cholangiography. Interpretation of these studies is hazardous, unless the limitations as well as the advantages are recognized. Consequently, a review of these techniques is presented with emphasis placed on their surgical significance. It is not the purpose to offer new methods, but rather to present examples and correlations granting the surgeon the privilege of gaining the utmost in assistance from his colleagues in radiology in the care of patients with biliary tract disorders.

Cholecystography

Oral cholecystography is an established technique associated with minimal risk. Pre-existing cardiac or renal disease, however, may increase the hazards of the examination. Rare instances of myocardial infarction and oliguria subsequent to the ingestion of the commonly used oral preparations have been reported.[1,11,17]

Cholecystography is associated with a high degree of diagnostic accuracy. Approximately two-thirds of the patients having cholelithiasis will have their stones demonstrated by this method.[22] The remaining patients with calculus disease as well as those occasional instances of non-calculus cholecystitis will most likely be reported as having abnormal cholecystograms on the basis of nonvisualization or very faint visualization with single or repeated examinations. The correlation between the findings on cholecystography and at the operating table is uniformly high. Whitehouse[23] reviewed the cholecystograms of 124 patients undergoing cholecystectomy at the University of Michigan. The actual pathologic conditions present consistently corresponded with abnormal findings on cholecystography

TABLE I. CORRELATION OF SURGICAL PATHOLOGY WITH CHOLECYSTOGRAPHY REPORTS

X-Ray Report	Operative Findings	Patients
Non-visualization ("stones present"—6)	Cholelithiasis —45 Other pathology— 5	50
Faint visualization ("stones present"—21)	Cholelithiasis —23 Other pathology— 4	27

Whitehouse, W. M.; SGO 100: 211 (1955)

(Table I). Of the 50 patients in whom visualization did not occur, 45 were subsequently found to have cholelithiasis. Only six of these patients had radiopaque stones permitting the preoperative diagnosis to be specific. The non-calculus pathology present in five of the 50 non-visualizing subjects was significant and included two cases of carcinoma as well as those patients having bona fide acalculus cholecystitis. Twenty-seven patients still had enough gall bladder function to provide faint visualization, and 23 of these patients did, indeed, have cholelithiasis. The cholecystogram was reported as definitely demonstrating calculi in 21 of these 23 instances.

It should be noted, however, that the interpretation of the cholecystogram can be difficult. Not infrequently, calculi in the gall bladder will co-exist with only minimal inflammatory changes, thus permitting the gall bladder to concentrate the dye to a high degree. Such a circumstance may result in the obscuration of the stones by heavy contrast. A composite of two films made during a single cholecystogram study is illustrative. The calculi present in the gall bladder are obscured during the period of maximal concen-



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tration of the dye (Fig. 1A). An exposure made after some of the dye had left the gall bladder disclosed the presence of the stones (Fig. 1B).

Attempts to visualize the gall bladder by the use of repeated cholecystograms may result in the concentration of the dye on the surface of the stones. Salzman[18] was able to demonstrate calculi by this technique in three of 34 instances, in which the cholelithiasis had not been previously noted because of non-visualization and the radiolucency of the stones. Figure 2A depicts a combination cholecystogram and upper gastrointestinal examination showing faint visualization of the gall bladder with no evidence of included stones and an incidental indentation of the first portion of the duodenum by the gall bladder. Subsequent cholecystograms, however (Fig. 2B), did demonstrate cholelithiasis not by the usual technique of a negative shadow, but rather by the adsorption of the dye on the surface of the stones. This finding was labeled the "rim-sign" by Salzman in his original report. In general, however, repeat examinations with increasing doses of dye rarely contribute significant additional information and may well increase the hazard of the study.



Fig. 1 A and B. *(above)* Obscuration of calculi by heavy concentration of dye on cholecystography.

Fig. 2 A and B. *(below)* Demonstration of calculi by the "Rim sign" with repeated attempts at cholecystography.

Unusual variations in gall-bladder configuration are occasionally demonstrated. The "Phrygian cap" appearance when seen on cholecystography is usually congenital in origin (Fig. 3). Large radiolucent calculi are noted in both the cap as well as the main body of the gall bladder in this example. Inflammatory changes can result in a similar appearance of the gall bladder, but in such instances the concomitant chronic cholecystitis would be expected to preclude visualization by cholecystography.

In general, oral cholecystography is a safe, inexpensive, and highly accurate technique for the x-ray diagnosis of pathologic conditions in the gall bladder. The findings of non-visualization or of very faint visualization on single or repeated examinations in the face of adequate hepato-cellular function and absorption

of the dye is almost always an indication of significant gall-bladder abnormality.

Intravenous Cholangiography

Intravenous cholangiography is likewise attended by minimal risk. Only 5 per cent of the patients experience significant side effects.[13] There have been two reported deaths attributed to this technique.[5] Patients with known sensitivity to iodides should not be subjected to this examination.

TABLE II. INTERPRETATION OF INTRAVENOUS CHOLANGIOGRAMS

Diameter of CBD (142)	Pathology
5mm or less	0%
5-15mm	Variable
15mm or more	100%
Contrast at two hours	
Maximal (38)	Present
Receding (15)	Absent

Wise, R.E.; JAMA 160: 819 (1956)

Intravenous cholangiography is of value only when the ductal system is adequately visualized. Success is therefore dependent upon hepato-cellular function. Serum bilirubin levels approaching 5 mg. per cent are rarely compatible with satisfactory cholangiograms.

This technique is of particular value when investigating the problem of the post-cholecystectomy syndrome. Excluding the demonstration of actual stones in the common duct, the interpretation of the x-rays is difficult. Wise[24] made an effort to correlate the dilatation of the duct and delayed emptying of the contrast media with the existence of ductal obstruction and/or choledocholithiasis. In his experience, a common bile duct diameter of 15 mm. or more was indicative of some element of obstruction with or without choledocholithiasis in all cases. Furthermore, when the two-hour radiograph demonstrated dye contrast equal to or greater than that seen on any of the previous exposures an element of ductal obstruction was present consistently (Table II). It should be noted that these examinations were all performed on patients following removal of the gall bladder. The presence of the intact gall bladder greatly delays the emptying time of the common duct on cholangiography.

Unfortunately, agreement does not exist as to such interpretations. Investigations carried out at Yale by Goldenberg[7] failed to find a relationship between ductal dilatation and delay in maximal visualization, an association implied by Wise's report from the Lahey Clinic. Our own experience indicates that there must be an element of caution in the interpretation of these films. A patient recently entered the University Hospital with symptoms suggestive of the "post-cholecystectomy syndrome," having previously undergone cholecystectomy followed by a choledochotomy as a secondary procedure. She had not been jaundiced and her hepatic function studies were within normal limits. The ductal diameter on cholangiography was 2 cm. and the two-hour film represented maximal concentration of the dye (Fig. 4). At operation, a small inflamed cystic duct remnant was found. However, there was no element of obstruction to the common duct and choledocholithiasis did not exist.

A careful study of two groups of patients reported by McClenahan[14] should serve to confuse the reader further. One-hundred and twenty-one symptomatic patients were seen with a chief complaint of right



Fig. 3. The Phrygian cap with included radiolucent calculi.

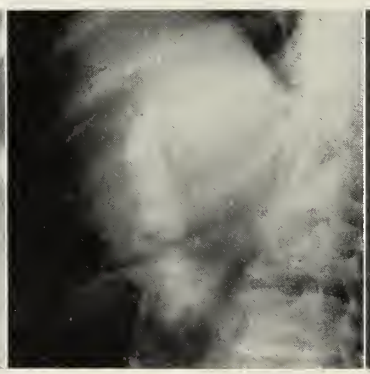


Fig. 4. Intravenous cholangiogram (post-cholecystectomy syndrome): dilated common bile duct without obstruction or choledocholithiasis.

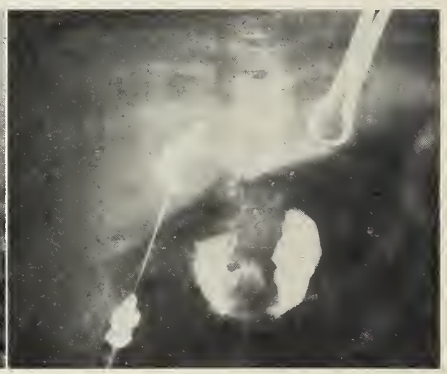


Fig. 5. Operative cholangiogram (initial): biliary atresia not amenable to operative correction.

upper quadrant symptoms following operative removal of the gall bladder, the "post-cholecystectomy syndrome." A control group consisted of 46 patients who were asymptomatic following cholecystectomy. The frequency of visible cystic duct remnants and the rapidity of spill of the dye into the duodenum were remarkably similar. The mean common duct diameters, as well as the frequency of common duct dilatation, were almost identical (Table III). It should be noted that in only one instance of confirmed choledocholithiasis was the presence of the calculi not demonstrated on intravenous cholangiography.

TABLE III. POST-CHOLECYSTECTOMY SYNDROME: FINDINGS ON INTRAVENOUS CHOLANGIOGRAPHY

	Symptomatic (121)	Asymptomatic (46)
Visualized	87%	96%
Cystic Duct Rem.	16%	28%
CBD Calculi	9%	4%
CBD Diam (mean)	9mm	9mm
Dye in duodenum (30 min.)	72%	53%

McClenahan, J.; JAMA 159: 1353 (1955)

It may be said, then, that intravenous cholangiography is of great value when hepato-cellular function allows adequate visualization and when common duct calculi can be demonstrated. The presence of ductal dilatation and prolongation of contrast emptying time are only suggestive evidence of an element of common duct obstruction and/or choledocholithiasis. There is inconsistency in the correlation between these secondary signs of ductal pathology and operative findings. Other than the demonstration of actual common duct calculi, the findings on intravenous cholangiography must be interpreted with caution and conservatism.

Operative Cholangiography

Mirizzi[16] initiated interest in operative cholangiography with his report in 1932. The technique has been adequately described by both radiologists and surgeons in the past. Most of the technical difficulties have been overcome. Some two-thirds of the surgeons in the United States utilize this procedure. The use of operative cholangiography may be subdivided into those instances wherein the cholangiogram is obtained as an initial step in the operation and those in which the radiograph is obtained at the termination of the operative procedure (Table IV).

When carried out as an initial step in the operative procedure, the cholangiogram is an aid in delineating occult structural anomalies. This is a particularly useful technique when dealing with congenital biliary atresias.[12] Preoperative intravenous cholangiography, unfortunately, has been uniformly unrewarding in these babies. An example of an initial cholangiogram taken during the operative exploration of an infant with congenital biliary atresia demonstrates the gall bladder, cystic duct, and common duct with adequate spill into the duodenum (Fig. 5). Biopsy revealed

TABLE IV. INDICATIONS FOR OPERATIVE CHOLANGIOGRAPHY

I. Initial
  A. Clarify anomalies
  B. Delineate unsuspected choledocholithiasis
II. Terminal
  A. Exclude residual calculi

complete absence of intra-hepatic bile ducts. This child died shortly after the operative procedure with congenital atresia of a type not amenable to operative correction. Occasionally, the cholangiogram will demonstrate a communication between liver parenchyma and an extra-hepatic duct system remnant, an abnormality potentially correctable by operative decompression.

TABLE V. POSITIVE POST OPERATIVE CHOLANGIOGRAMS: Analysis of Subsequent Course

No calculi		28
Repeat x-rays negative	14	
One x-ray asymptomatic	8	
Negative CBD expl.	6	
Calculi		22
Choledocholithotomy	12	
Symptomatic-persistent defect	5	
Asymptomatic-persistent defect	3	
Successful flush	2	

Goldsmith, N. A.; Surg. 44: 868 (1958)

The initial operative cholangiogram may indicate the necessity for common duct exploration. The cardinal indications for common duct exploration during operations for gall-bladder disease fall considerably short of perfection. Throughout this country, some 20 to 40 per cent of cholecystectomies for calculus disease include a choledochotomy and only 25 to 50 per cent of these duct explorations are rewarded by the finding of significant pathologic conditions. In addition to the large number of patients undergoing unnecessary choledochotomy, with its attendant increase in morbidity and mortality, there is a significant incidence of choledocholithiasis present in those situations wherein common duct exploration is not indicated by history or by operative findings. Glenn[5] reviewed the records of 100 patients having undergone cholecystectomy without common duct exploration based on the usual

criteria. Four of these patients required subsequent re-operation for choledocholithiasis. Mehn[15] was able to demonstrate 11 instances of choledocholithiasis by 113 consecutive initial operative cholangiograms performed in cases without the classic indications for choledochotomy. When palpable stones are present, the patient is jaundiced, or ascending cholangitis and pancreatitis have been dominant in the history, the common duct must be explored operatively. In the presence of such relative indications for exploration as multiple small stones in the gall bladder, jaundice remote in the history, acute cholecystitis, or minimal dilatation of the common duct, the use of initial operative cholangiography can be expected to lower both the incidence of unnecessary choledochotomies as well as the number of missed common duct calculi. A strong argument can be made in favor of cholangiography during the operation on patients with any form of biliary tract disease. The technique embraces a 5 to 7 per cent rate of error,[9] represented by both false positive and false negative interpretations. The rare complication of pancreatitis attributed to this procedure is difficult to establish with certainty in view of the frequency of postoperative pancreatitis associated with biliary tract surgery in general.

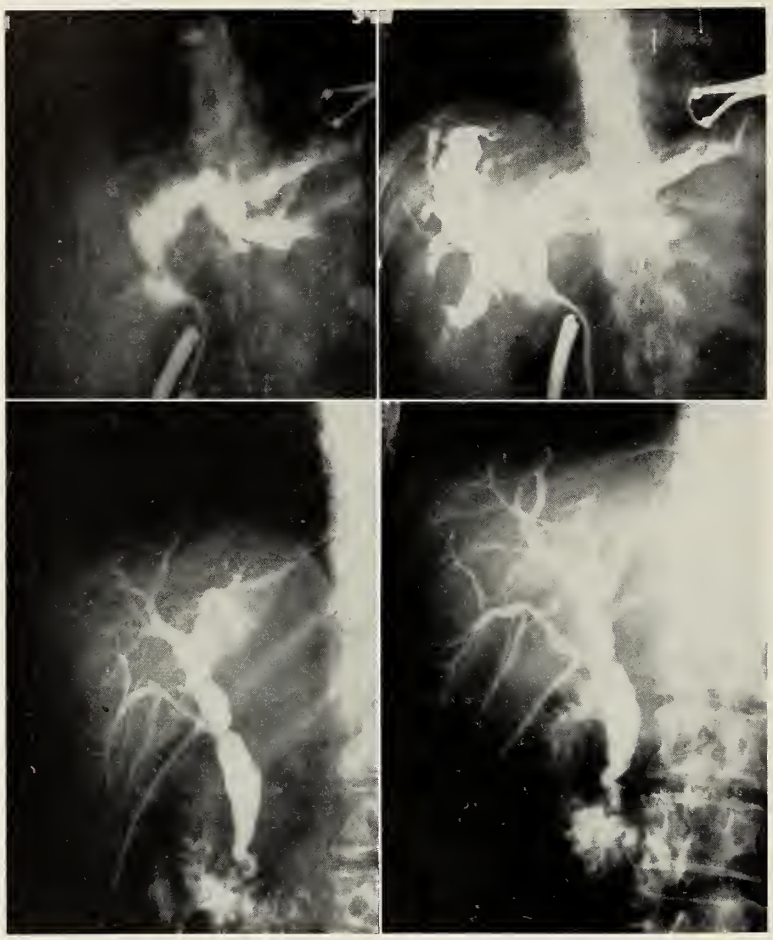


Fig. 6 A and B. *(above)* Operative cholangiogram (terminal); before and after removal of residual calculus in right hepatic duct.

Fig. 7 A and B. *(below)* "T" tube cholangiograms; distal common duct abnormality subsequently shown to be mucosal fold.

Operative cholangiography carried out at the termination of common duct exploration receives almost universal acceptance. The incidence of residual common bile duct stones varies from 3.5 per cent[8] to 11 per cent and more.[21] These are current figures and include the elective use of operating room cholangiography. Our own hospital has a 6.9 per cent incidence of retained stones following common bile duct exploration.[7] It is much more common to find residual stones

present after a positive duct exploration (8.3 per cent of 190 cases) than it is to find a missed stone present following a negative choledochotomy (3.6 per cent of 249 cases).[2] Thompson[21] re-emphasized the importance of the completion cholangiogram. T-tube injections in the operating room following the supposed satisfactory completion of 39 common duct explorations revealed the presence of residual calculi in ten. Six of these 10 were re-explored and the stones removed. The stones were not noted by the surgeon reviewing the films in four of these cases but were subsequently reported by the radiologist. A competent radiologist should review the radiographs prior to the completion of the operative procedure.

Stones are most likely to be missed when exploration reveals a multitude of small calculi and the so-called bile sludge or gravel. Hepatolithiasis was present in 7.4 per cent of the cases of calculus disease reported by Hicken.[8] Completion operative cholangiography is of particular value in these patients. Figure 6A represents the completion operative cholangiogram obtained on a patient who had undergone a common duct stricture repair and a large number of stones removed from the biliary duct system. The failure of the right intra-hepatic duct to fill indicated the presence of a retained stone within the liver substance. Following the removal of this stone, a second completion cholangiogram was obtained (Fig. 6B) and the operation satisfactorily terminated. The importance of the completion operative cholangiogram in this case cannot be challenged.

In general, operative cholangiography has found a definite place in the surgeons' armamentarium. This technique should be utilized at the termination of all common duct explorations prior to the completion of the operative procedure. In fact, these radiographs should be strongly considered as a part of any operative attack on the biliary duct system.



Fig. 8. Operative cholangiogram: previous failure with transhepatic technique —minimal dilatation of intrahepatic ducts with stricture of common bile duct.

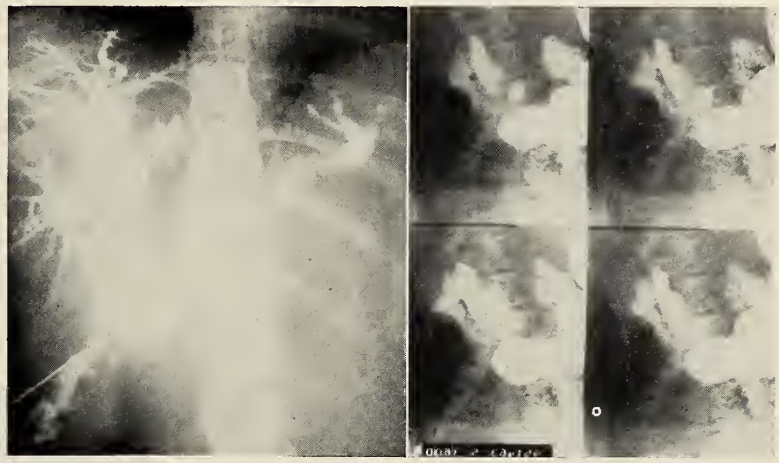


Fig. 9. *(left)* Transhepatic cholangiogram; successful demonstration of stricture and dilated intrahepatic bile ducts.

Fig. 10. *(right)* Upper gastrointestinal examination; indentation of normal common bile duct on first portion of duodenum.

Postoperative Cholangiography

In addition to the operative cholangiogram, a contrast media injection of the T-tube should be carried out prior to its removal, usually about the seventh to tenth postoperative day. Often, these examinations are confusing and may require multiple x-rays for accurate interpretation. An example of a mucosal fold simulating a residual common duct stone lodged near the ampulla is depicted in Figure 7. Of incidental interest in these radiographs is the anomalous right hepatic "accessory" duct. The eventual fate of 50 patients having positive T-tube cholangiograms was reported

by Goldsmith and Ransom[7] (Table V). Those patients with defects noted on only one postoperative cholangiogram were classified as not having conclusive evidence of retained calculi. This was confirmed by negaraphy was a significant aid in diagnosis in only 47 per cent.[10] Our personal experience at the University of Michigan has likewise been disappointing. In 10 patients with subsequently proven common bile duct

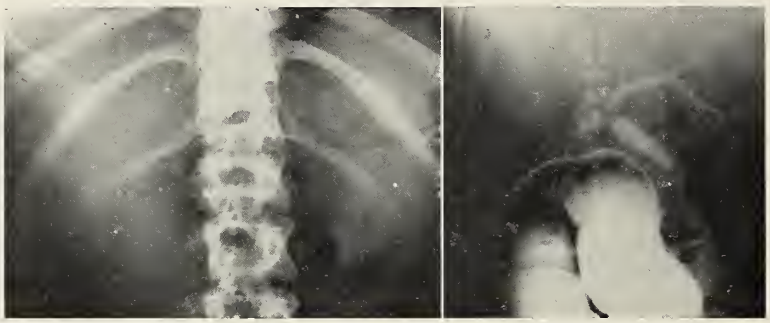


Fig. 11. *(left)* Flat plate of abdomen; air in biliary system subsequent to cholecystoduodenal fistula.
Fig. 12. *(right)* Barium enema; demonstration of cholecyto-colic fistula with reflux of barium into bile ducts.

tive choledochotomy in six instances and negative repeat T-tube injections in 14 instances. The group of eight patients in whom the T-tube was removed following a single x-ray showing a defect is a troublesome one. Some of these patients may still be harboring a common duct stone though they have remained asymptomatic. Of the 22 patients considered definitely to have residual calculi, 12 were cared for by definitive operative procedures. Some of the others have remained symptomatic but have resisted recommendations for choledochotomy. The need for multiple radiographing and careful interpretation is evident.

Postoperative T-tube contrast studies should always be obtained prior to removal of the tube, irrespective of the findings on completion operative cholangiograms. The interpretation of these "T" tube cholangiograms is sometimes difficult and may require several examinations for resolution.

Transhepatic Cholangiography

The inability of the jaundiced patient to utilize the hepatic route for excretion of iodides frequently leads to a diagnostic impass. Carter and Saypol[3] reported the first instance wherein the technique of percutaneous transhepatic cholangiography was utilized. Since their initial report in 1952, many references to this technique have been made in the literature. The morbidity associated with transhepatic cholangiography is approximately 4 per cent and consists primarily of bile peritonitis and hemorrhage. There is in addition a 1 per cent fatality rate. Of 225 cases collected from published reports, the use of transhepatic cholangiogobstruction successful transhepatic cholangiograms were obtained in only five. Intrahepatic biliary duct dilatation is necessary for consistent success with this technique. Surprisingly high grade obstruction of the extrahepatic ducts may exist for extended periods of time without the occurrence of significant dilatation of the intrahepatic radicals. Several attempts to obtain a transhepatic cholangiogram failed in one of our cases. A subsequent operative cholangiogram (Fig. 8) showed only minimal dilatation of the intrahepatic ducts in the face of prolonged extrahepatic ductal stenosis. Occasionally, however, gross dilatation of the intrahepatic biliary tree will permit successful percutaneous transhepatic cholangiography (Fig. 9). Both of these patients have done well following choledochojejunostomy for correction of their bile duct strictures.

In spite of some of the more enthusiastic reports referable to this technique,[19] we remain skeptical as to the value of percutaneous transhepatic cholangiography. Transhepatic needling and injection of contrast media as an open technique during the more difficult operative procedures on the biliary tree may well be a valuable adjunct. In this way, the majority of the dangers of the procedure will likewise be avoided.

Miscellaneous Techniques

Gastrointestinal x-ray examinations will occasionally provide information referable to the biliary tract. An example of indentation by the gall bladder on the first portion of the duodenum has already been presented (Fig. 2). An unusual finding is the demonstration of the common bile duct by pressure against the barium-

filled duodenum (Fig. 10). This patient was not jaundiced and did not have signs or symptoms suggestive of hepatic or biliary dysfunction.

Internal biliary fistulae permit the bile ducts to become filled with swallowed air and, consequently, to be rendered visible on a flat plate of the abdomen (Fig. 11). When seen concomitantly with intestinal obstruction, this picture would be highly suggestive of gallstone ileus. The most common internal fistula is the cholecystoduodenal followed probably by the cholecystocolic. Rarely, one may demonstrate filling of the bile ducts during a barium enema examination (Fig. 12). At operation, this patient was found to have marked active chronic cholecystitis and choledocholithiasis with a stone impacted in the distal common bile duct. The very existence of an internal fistula implies a severe inflammatory process and stones impacted in either the cystic duct or the distal common bile duct. It is unusual for neoplasms to result in internal biliary fistulae except as a terminal complication.[12]

Splenoportography has been primarily performed for the demonstration of esophageal varices secondary to portal hypertension. Additional information referable to hepatic disease can be obtained through the use of this technique. Variations in the intrahepatic portal system seen with portography are often suggestive of cirrhosis.[4] Metastatic neoplasm in the liver may be suspected when the intrahepatic aborization is locally displaced. The comparison of a normal portagram (Fig. 13A) with that of a patient subsequently found to have carcinomatous occlusion of the portal vein and metastatic implants in the liver substance (Fig. 13B) is illustrative.

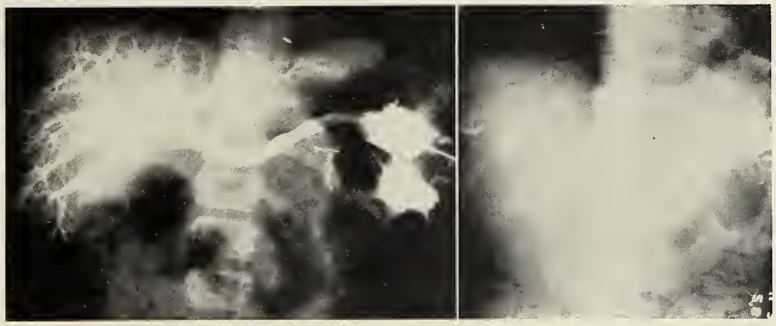


Fig. 13. Splenography; comparison of normal spleno-portagram *(left)* with portagram demonstrating neoplastic encroachment on portal vein and intrahepatic metastatic disease *(right)*.

Summary

A general review of the place radiology holds in the diagnosis of hepato-biliary disorders has been presented. Cholecystography, parenteral cholangiography, operative cholangiography, transhepatic cholangiography, and ancillary techniques are discussed. Particular emphasis has been placed on the surgical implications and illustrative examples are presented.

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Diverticulitis of the Colon

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MANY medical investigators impressed with the importance of diverticulitis of the colon, have attempted to estimate the incidence of diverticula of the colon, found among the general population. Many studies have been attempted from different approaches in an effort to answer this problem.

Ochsner and Bargen[7] reported that 7 per cent of the autopsies at the Mayo Clinic revealed diverticula. Pemberton, Black, and Minimo[8] from the same institution reviewed 4,700 roentgenological examinations of the colon, and reported diverticulosis was seen in 8.5 per cent. Clinical studies of various types on hospital populations and others have been conducted. Many patients are seen in offices and clinics with minimal disease. These cases are seldom available for statistical study. Undoubtedly, many people have symptomless diverticula of the colon. These people are frequently unaware of the presence of these diverticula, until they are discovered in routine examination, or symptoms occur, usually due to infection.

It is possible that large scanning procedures with roentgenological studies of the colon, in cancer detection centers, may be helpful in establishing some approximate figure, of the number of people in the general population who have diverticula of the colon. It appears, at this time, to be impossible to accurately estimate the instance of the condition in the general population. According to the best estimates taken from statistical studies, about 10 per cent of the population over 40 years of age have diverticulosis. It is also estimated that of this number, 20 to 25 per cent will likely develop diverticulitis. Approximately 15 per cent of this number are likely to develop complications which will require surgical intervention. It has also been quite generally noted in statistical studies that before the age of 40, diverticulosis and its complications seldom present a serious problem. Many exceptions to this generalization are constantly encountered. All studies indicate that the incidence of diverticulitis increases in the older age groups. Welch's[13] studies indicate about 66 per cent of all people at age 85, have diverticula of the colon.



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When Moynihan,[6] in 1906, first called attention to the fact that diverticulitis could mimic carcinoma, the average life expectancy was 49 years.

The Metropolitan Life Insurance Company actuaries forecast the life expectancy of three million of industrial policyholders will be 70.5 years. This is up from 65.5 years in 1946 and up from 60.5 years in 1937.

This is an increase in life expectancy of 10 years in approximately the last quarter of a century. If we project this figure into the future, the next 25 years will see a life expectancy of 80 years. On the basis of Welch's study, approximately two-thirds of these people will have diverticula of the colon. Considering the problem in our present day, in a population in the United States of more than 175,000,000, some 17,500,000 people have diverticula of the colon. Approximately 1,750,000 of these will develop some serious complication of diverticular disease.

With a knowledge of the high incidence of diverticula developing after the fourth decade of life, an ideal goal would be one in which a prophylactic treatment could be instituted to prevent the formation of diverticula. It is obvious that no such prophylactic treatment can be suggested. With increased studies on the problem of aging, it would be well to direct some attention to this problem.

Although the cause of the development of diverticula has not been established, this does not preclude the

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prophylactic treatment of diverticulitis, the most common complication of diverticulosis.

The terms diverticula, diverticulosis, diverticulitis, and diverticular disease are commonly used, and frequently interchangeably.

In this presentation, diverticula is understood to be what is known as a false or acquired type of diverticulum, in contrast to the true diverticulum. These are herniations of the mucosa through the muscularis and are concealed by the serosa.

TABLE I. INCIDENCE ACCORDING TO AGE

Age Distribution	Medical			Surgical		
	M	F	Total	M	F	Total
39					1	1
40-49	3	2	5	0	2	3
50-59	4	8	12	4	7	11
60-69	5	8	13	5	9	14
70-79	8	13	21	2	4	6
80-88	3	3	6			

These diverticula are most commonly found in the sigmoid colon, but are found throughout the entire colon. They are frequently asymptomatic, and such a condition is described as diverticulosis. When these out-pouchings become inflamed, and infected a definite symptom complex results. This is characterized by abdominal pain, usually in the left lower quadrant of the abdomen. Abdominal rigidity may result. Changes in the normal peristalsis of the colon follows. There may be acute constipation or diarrhea. Nausea and vomiting may occur. Bleeding is a controversial symptom, but undoubtedly occurs in many cases. These findings are usually accompanied by an elevation in temperature and a leukocytosis. This is then designated as diverticulitis. The presence of diverticula and various stages of infection is frequently referred to as diverticular disease.

A report on the "Natural History of Diverticulosis of the Colon" is presented by Horner,[4] using for his study 503 patients from his office records. In his study, he reports 95 per cent of the patients had diverticula involving the colon and in 47 per cent the sigmoid was the sole site. Hinton[3] emphasized the importance of diverticula involving the entire colon. Wagner and Zollinger[12] have recently published a comprehensive review on diverticulitis of the cecum and ascending colon.

Obviously, complications of diverticulosis will occur in exact proportion to the location of the diverticula. With the greater incidence and more extensive numbers of diverticula in the left and particularly the sigmoid colon, it is a part of the natural history that most diverticulitis will occur in the left colon. The total colon, particularly the right colon, may be involved. This should not be overlooked in considering a diagnosis in obscure disease of the abdomen, particularly in the older age groups.

Hinton,[3] quoting Bales and Jordon, points out the higher incidence of complications in patients followed over a prolonged period of years. Horner made a like observation in his study. Horner[4] noted an incidence of complications in 9.7 per cent of patients followed one to five years. The incidence of complications increased to 26.7 per cent in patients followed 11 to 18 years. Of the numerous studies reported in the literature, the studies quite uniformly agree on the course of the disease and its complications.

In a previously reported paper,[10] a study was made on hospital admissions from January 1, 1955 to April 1, 1959. As a follow-up study, 100 consecutive cases were studied from the same institution dated from April 1, 1959. The present study consisted of 100 consecutive hospital records with a discharge diagnosis of diverticulosis or diverticulitis. Diverticulitis was not necessarily the primary disease for which the patient was hospitalized. It is quite obvious these patients would have more extensive disease than those being cared for in an office or at home. Of these patients, 34 were treated surgically, 56 medically, and the remaining 10 patients were operated upon for other conditions. In the medical group, it was noted, three were advised to return for surgical treatment. Four of those treated surgically had had prior medical admissions for diverticulitis. The incidence according to age by decades is noted in Table I. This corresponds to other studies showing a higher incidence in the later years of life.

TABLE II. REASON FOR HOSPITALIZATION

Rectal bleeding	14
Gastro-intestinal bleeding	3
Diverticulitis	13
Acute condition of abdomen	6
Colitis	4
Partial bowel obstruction	3
Peptic ulcer	3
Ruptured viscus	2
Cancer colon with diverticulitis	1
Miscellaneous medical diagnoses	7

In Table II is recorded the reason for hospitalization for the medically treated patients.

The principal finding on examination of these patients after hospitalization is given in Table III.

TABLE III. PRINCIPAL FINDING ON ADMISSION

Abdominal pain		23
General abdominal pain	18	
Local pain and rigidity	5	
Gross rectal bleeding		9
Anemia, marked		5
Palpable abdominal mass		3
Obstructive signs		2
Diarrhea		2
Weight loss		1

Many of these patients suffered from other serious medical conditions. In these patients, the diverticulitis was an added strain to their physical resources. In this series of cases, three patients were advised to have surgical treatment after the acute exacerbation had subsided. One patient, age 42, was re-admitted a second time and given medical treatment for recurrent diverticulitis.

It is also of interest to note that 17 of 56 patients treated medically had symptoms of rectal bleeding. Seven of these were under 65 years of age. Thirty of the 56 patients were under 65 years of age. There were two deaths in the group treated medically. One had known carcinoma complicating diverticulitis. Cardiovascular and other visceral changes precluded surgery. The second died of hypertension and cardiovascular complications.

The indications for surgical treatment in the 34 cases treated surgically is given in Table IV.

TABLE IV. INDICATIONS FOR SURGICAL TREATMENT

Primary finding carcinoma with accompanying diverticulitis	5
Perforation with abscess formation	9
Symptoms of obstruction	7
Massive hemorrhage	4
Colo-vesicle fistula	1
Recurrent typical symptoms of diverticulitis	8
Total	34

In addition to the known cases of carcinoma, there were two additional cases of early carcinoma and two additional cases with polypoid adenomas. None of these four had massive hemorrhage.

In five of the patients operated on, the indication for surgery was carcinoma with diverticulitis a coincidental finding. This is not an uncommon finding. This would be expected, as both diseases occur in older age groups. A more significant finding in two cases was early carcinoma not definitely diagnosed before surgery. Also in two additional cases, polypoid adenomas were found. In either case were these adenomas suspected. These findings raise the question as to early neoplastic disease present in the medical cases in which operation was not performed, but in which bleeding was noted to be a significant symptom. Careful frequent observation, and continued examination for neoplastic disease, is an obligation the internist must assume in those cases being treated medically.

Perforation with peritonitis and abscess formation occurred in nine cases. This is the most common complication in this small series of cases. However, this conforms with our prior study and in the majority of studies reported.

Undoubtedly, abscess formation occurs in many cases of diverticulitis. Many of these small abscesses under medical management may well drain into the lumen of the bowel and regress. Larger abscesses may coalesce and with good resistance to infection the process may develop into a diverticuloma so frequently seen. Under less favorable circumstances, the abscess progresses rupturing into the peritoneal cavity.

During such periods of recurrent exacerbation, the patient should be carefully observed. The clinical findings, leukocytosis, and febrile re-action must be carefully followed. With antibiotic therapy, parenteral fluids and later, oral liquid feedings, such a process may regress. This period of observation and treatment is justified, if there is continued progress by the patient. If the process resolves, multiple surgical procedures may be avoided and a single one-stage resection can be performed at a later date. Should the process extend and the clinical findings become worse, then surgery is mandatory. An extensive free perforation seldom presents a problem in diagnosis or therapy as the symptoms and findings are definite. The surgical procedure elected requires careful surgical judgment. As a general rule, a direct attack on the inflammatory process during an exacerbation is rarely warranted. The inflammation, swelling, edema, and fixation of the process makes a direct attack hazardous and difficult. A safer procedure is a temporary colostomy shunting the fecal stream thus allowing the inflammation to subside. This is preferably done in the right transverse colon. If the colostomy is done in this segment of the colon, adequate mobilization of the left colon is possible at a subsequent surgical procedure.

Should the process be slow, with sub-clinical manifestation of the disease, a granuloma may result. The clinical manisfestation here is one of obstruction. These are the cases in which a differential diagnosis between diverticuloma and carcinoma may be exceedingly difficult. In the presence of marked infection, swelling, edema, and distention, a defunctionalizing colostomy (as above described) is indicated. If the differential diagnosis between infection and malignancy is in doubt, the second procedure should be undertaken in approximately two to four weeks. If malignant disease can be definitely excluded, the second operation can be deferred indefinitely. A period of at least two months is recommended.

It is interesting to note that in this small series of cases there were nine cases of neoplastic disease. As

noted above, in five cases this was the primary disease. In two, carcinoma was suspected but not definitely diagnosed. In two additional cases, the pedunculated adenomas were not suspected. This makes a total of 29 per cent, with neoplastic disease.

These findings, which are duplicated by percentage in larger series of cases should produce a high index of suspicion in any case in which there is not a very prompt response to medical treatment, and a neoplastic lesion cannot be excluded. Inability to exclude carcinoma is an indication for early surgical intervention. This recommendation may of necessity be modified in the very elderly or poor risk patient.

Hemorrhage

Until recent years, diverticulitis as the cause of massive intestinal hemorrhage has received little recognition. In most treatises on this subject, the emphasis has been placed on the necessity of seeking an unrecognized neoplasm as the cause. Ross[11] reported a study of 20 cases in which diverticular disease was the cause of massive hemorrhage. He contends that in the absence of ulcerative colitis, massive hemorrhage from the colon is more likely to result from diverticular disease than carcinoma. Erosion of a vessel at the ostea of a diverticulum secondary to inflammation has been given as the explanation of this bleeding.[1]

In accepting diverticular disease as a cause of bleeding from the colon, it is obvious that this cause can be accepted only after neoplastic disease has been excluded by meticulous examination. Fortunately, in most instances, the patient can be maintained by blood replacement and medical treatment. If the bleeding is minor, the majority of the cases can be carried by medical management indefinitely. Patients placed on medical regimes must be completely examined periodically, as early malignant and pre-malignant polypoid lesions may otherwise progress unrecognized. In the occasional patient who must be operated on as an emergency, the surgeon can rarely, if ever, determine the source of bleeding. The colon is filled with blood, and the surgeon must resect beyond the point of recognizable disease. Even after resection, the pathologist is usually unable to determine the exact point of bleeding. In such cases, time alone is the final judge as to the success of the procedure.

It is interesting to note that there were four cases of massive bleeding in this series. There was no malignancy in any of these four cases of massive hemorrhage. The one surgical fatality occurred in this group. The patient was a 76-year-old woman who bled profusely for 25 hours before surgery. The operation consisted of the removal of a granuloma and a double barrelled colostomy. Death was attributed to myocardial infarct.

The one patient with colo-vesicle fistula was operated on in a one-stage procedure. Surgical convalescence was uneventful. This case has been followed by this author and has been very successful. Except in a most unusual case, the inflammation and induration around such a fistula is so extensive, a preliminary defunctionalizing colostomy is usually indicated as the first stage procedure. This is later followed with definitive surgery at the second stage. At this stage, a wedge of the bladder including the fistula is excised, together with the segment of bowel involved with diverticulitis. The colostomy is subsequently closed as a third-stage procedure. The extent of the surgery usually required to remove such a fistula justifies elective resection of the diseased colon where such a development may be suspected. A male patient having known diverticultis with bladder symptoms, which cannot be explained by careful urologic examination, is a candidate for elective colon surgery.

TABLE V. SURGICAL PROCEDURES

Segmental resection		26
Two-stage procedures, colostomy and resection	9	
Three-stage procedure	2	
Total colectomy—one-stage		1
two-stage		2
One-stage transverse and left colectomy		2
One-stage colectomy with resection of colo-vesicle fistula		1
Closure of perforation and drainage		1
Resection of granuloma and double barrelled colostomy		1
Total surgical cases		34

Surgical deaths 1
Case of emergency operation for massive hemorrhage in a 76-year-old woman
Operation—resection of diverticuloma with colostomy
Cause of death—coronary infarct

In eight of the surgical cases (23 per cent) operation was done for recurrent attacks of diverticulitis. In these cases, the operation was done as an elective procedure. There is general agreement that the complications of diverticulitis briefly discussed above are indications for surgical treatment. Elective surgery for diverticulitis has become more frequent in recent years. This is undoubtedly due to improved surgical results. It is interesting to note that there were no deaths in the small number of elective surgical pro-

cedures reported. Only one death occurred and this in an elderly patient in whom surgery was done after other measures had failed. The surgical procedures done in this series are tabulated in Table V.

Careful preparation of the patient for major elective surgical procedures have not only reduced the mortality, but also the morbidity. An ideal theoretical consideration would be to remove the segment of bowel involved with diverticula, thus making it impossible for diverticulitis to occur. Obviously this would be an impractical solution.

At the present time, some criteria for elective surgery should be available. Any such criteria are obviously general. Each case should have the careful and considered opinion of the internist and the surgeon in an effort to arrive at the best possible decision. As has been noted, the incidence of complications is increased in those cases of longer duration, and widespread involvement of the colon. The fact is not to be overlooked, however, that severe complications occur in the presence of minimal involvement. It would seem a natural conclusion that a patient with extensive involvement in otherwise good health in the fourth, fifth or early sixth decade of life with recurrent episodes of diverticulitis would be a likely candidate for elective resection as according to statistical study such a patient through the years could anticipate some complications. Elective operation would then avert future multiple surgical procedures with increased risk of mortality and increased morbidity. Also as noticed in this study, several patients were treated medically because of age and other disease which made them poor surgical risks in the latter decades of life. It would seem a more prudent course to have this operative procedure done in an earlier period in life. An elective resection done at an earlier period in life would have less surgical risk, and the patient could anticipate a cure of the disease. It has been well established that medical management in the majority of these cases is quite efficient in promoting a remission of the disease. Medical treatment quite obviously cannot cure the disease. It would seem, then, that in any patient who failed to respond to medical management, or who did not adhere rigidly to medical management, and as a consequence suffered frequent recurrent attacks, would be a candidate for surgery. Surgery done as an elective procedure would prevent the occurrence of more devastating complications which could be expected to occur.

It is also quite generally accepted that in any case in which there remains a doubt, after careful roentgenological examination and sigmoidoscopic examination as to whether or not the disease is malignant, this patient should be considered a candidate for surgery. Blood in the stool can hardly be taken as a finding to determine the necessity for surgery. Bleeding is a symptom common to both cancer and diverticulitis. Microscopic study of colon washings to determine the presence of malignancy is a further adjunct in our diagnostic armamentarium. If such cells are found, the decision for surgery becomes easy. If such cells are not found, there is still doubt as to whether the lesion may be neoplastic or inflammatory, and the lesion still remains with its symptoms. In such a case, the inflammatory process alone is usually an indication for surgery, whether a neoplasm is or is not present. In a good surgical risk patient, where there is any doubt, I would consider the treatment of choice to be surgical. Another indication might be recurrent bleeding. Recurrent bleeding quite obviously will cause anemia and debility to the patient.

Surgical procedures performed under the extreme hazard of massive bleeding have a far greater risk than those performed under more favorable surgical conditions. In the author's experience, two total colectomies have been done under adverse circumstances of uncontrolled massive hemorrhage in which there was x-ray evidence of diverticulae throughout the colon. Here the operating surgeon has no choice but to remove the entire colon, lest bleeding again recur after a segmental resection has been done. There is no way of knowing at operation the exact site of the origin of the bleeding.

Fistulae resulting from diverticulitis always present a complicated surgical problem. Most of these occur between the sigmoid colon and the male urinary bladder. The incidence of colo-vesicle fistula could be just as high in female patients who have had prior hysterectomy. Ovarian abscesses, in which diverticulitis may be the etiological origin, are frequently encountered. Fistula between the colon and other viscera have been reported, as well as extensive fistulization to the abdominal wall. These fistulae can be so complicated that elective prophylactic surgery is justified in a case of recurrent disease, in which such a complication may be anticipated. As described previously, the best example of this is in the male patient. A male patient having diverticulitis with recurrent bladder or urinary symptoms unexplained by thorough urologic study is certainly a candidate for elective resection of the segment of colon involved with diverticulitis.

An elective surgical procedure should be done at a carefully selected time. This should be done during a

remission. If possible, it should be done after the maximum improvement from medical management has been accomplished. Before surgery, any anemia should be corrected by blood replacement. Electrolyte imbalance should be corrected. An adequate period of time should be spent in preparing the bowel for surgery. The non-absorbable sulfonamide drugs, and non-absorbable antibiotic drugs, together with bowel cleansing, have greatly improved the results in colon surgery. Adequate intestinal preparation has been fully described, and for the best results must be carefully adhered to.[2,9]

The surgical procedure of choice is a wide resection of the involved colon with an immediate end-to-end anastomosis. We prefer an open anastomosis with a two-layer suture. Other surgeons may prefer their own techniques. The technique must be meticulous. The segment of colon removed must be extended enough that the anastomosis can be done with normal bowel. The anastomosis cannot be expected to heal and function well, if done where the intestine is infected, edematous, distended, or if there is any tension. The procedure must be adequate enough to insure a good anastomosis. It will be noted in our study that four total colectomies were done. Lillehei and Wangensteen[5] noted there is apparently little physiological change when the colon is removed, if the distal ileum is preserved. Seldom do diverticula extend distal to the peritoneal reflection. These patients usually have a normal rectum. Very satisfactory results can be expected with segmental resections. If necessary, a total colectomy, with an ileorectal anastomosis can be done. Such extensive surgery is usually not indicated, as has already been mentioned the disease process is usually confined to the left colon.

If there is any question as to the integrity of the anastomosis, some decompression procedure to protect the anastomosis during its period of healing must be done. If the left colon is resected, a temporary colostomy in the right transverse colon has proven through the years to be a very satisfactory procedure. The colostomy is then closed at a subsequent stage. The patient is subjected to a second major surgical procedure, but this is far better than a breakdown of the anastomosis with its complications. In recent years, we have found a temporary tube gastrostomy to be a very satisfactory method of decompression for a surgical procedure performed upon the colon. This has been very effective in preventing distention, and the comfort to the patient has been very gratifying. At first consideration, the procedure seems quite formidable, but this has not been found to be the case. In our experience, after removal of the tube, the gastrostomy wound heals quickly and spontaneously. It may be that this procedure works well in colon surgery, because the gastro-colic reflex is not initiated. This allows the colon a period of quiescence to recover from the surgical procedure.

Summary

In a population with rapid marked increase in the older age groups, pathologic processes involving the older age groups can be expected to be more frequently encountered. One of these is the presence of diverticula in the colon. The presence of diverticula is an indication for medical management to prevent diverticulitis and its complications. When the disease process is understood and explained, the majority of these cases can be managed medically. It must be understood by the patient that medical treatment is a control of the condition, not a cure of the condition. In a variable percentage of these cases, depending upon the medical management given, and the adherence to the management followed by the patient, certain complications can be expected to occur. The first of these is diverticulitis. Recurrent attacks of diverticulitis require careful medical and surgical re-evaluation of the patient. Recurrent exacerbation may result in a severe surgical emergency, perforation, peritonitis, abscess formation, fistula, obstruction, particularly with a possibility of carcinoma, and the occasional case of uncontrolled massive hemorrhage are recognized as surgical complications.

In certain cases, evaluation of recurrent diverticulitis should result in elective surgery. Those in the younger age group should be carefully evaluated surgically. It has been shown that the longer diverticulitis is present, the higher the incidence of complications. The only cure for diverticulitis is surgical. To control the condition to an older age increases the surgical risk.

The surgical results in elective surgery have proven to be highly satisfactory by the best qualified of all critics, the patients themselves. The disability, discomfort, pain, and anxiety, experienced by the patient with recurrent disease of diverticulitis, are findings which cannot be demonstrated by laboratory tests nor tabulated in statistics. One of the best indications for surgery is to suggest to the patient with recurrent disease the possibility of cure by surgical treatment. The best indication of the success of any form of treatment is the satisfaction of the patient. By these tests, elective surgery where indicated has proven to be highly successful.

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Osteomalacia

A Review of Diagnosis and Etiology

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THE METABOLIC bone disease, osteomalacia, has long been of clinical interest. When the disease appears in its classic form, the diagnosis is usually made without difficulty, but atypical features and treatment resistance have resulted in many perplexing clinical problems.[1] It is generally assumed that osteomalacia differs from rickets only in the absence of the well-known metaphyseal abnormalities seen on radiographs and pathologically in the latter condition.

Diagnosis

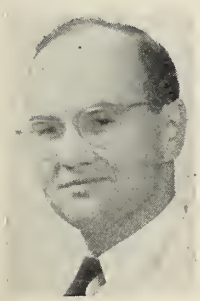
The skeletal symptoms of osteomalacia are often vague and may masquerade as arthritis or muscular rheumatism. A diagnosis of psychoneurosis is not infrequently attached to patients with the condition. One patient, seen by the author, was treated by a psychiatrist for three years because of unexplained pelvic pain and dyspareunia. Pelvic radiographs obtained after the patient became bedridden demonstrated the typical pseudofractures of osteomalacia. Another patient with severe presistent low back pain was thought to have a herniated lumbar disc. Myelogram was performed and was negative. Subsequent serum chemistries were diagnostic of osteomalacia. Both of the above patients were asymptomatic after appropriate treatment for the metabolic bone disease.

The bone pain and tenderness of osteomalacia is usually confined to the back and lower extremities, aggravated by weight bearing and improved by bed rest. Moderately severe muscle weakness is a common but unexplained feature. In severe cases, the patient may be unable to raise the arms above the head because of this weakness. The combination of muscle weakness and bone pain in the lower extremities may result in a waddling gait comparable to that seen in muscular dystrophy.

Characteristically, the biochemical abnormalities of osteomalacia consist of fasting hypophosphatemia, normo- or hypo-calcemia, and an elevated alkaline phosphatase. The hypophosphatemia is the most helpful sign and, depending upon the etiology of the osteomalacia, results from a combination of factors, including reduced intestinal absorption and increased urinary excretion of phosphorus. The latter may be difficult to demonstrate and may be only relative unless the often marked hypophosphatemia is taken into consideration. Secondary hyperparathyroidism and/or a primary renal tubular defect is usually considered responsible for this relative hyperphosphaturia, but positive proof for either is lacking.

The serum calcium is usually normal, but on occasion is depressed to the point of tetany. The occurrence of hypocalcemia has been explained on the basis of a failure in development of secondary hyperparathyroidism. In theory, the appearance of secondary hyperparathyroidism under such conditions is commonly considered to restore the serum calcium level towards normal. Elevation of the serum alkaline phosphatase probably results from increased osteoblastic activity which leads to the formation of excess osteoid tissue. The stimulus for this increased osteoblastic activity is unknown, but may be due to increased skeletal stress as the patient attempts to compensate for the bone pain and muscular weakness. While most patients with active osteomalacia will have significant elevations of the alkaline phosphatase, it is not invariably present and does not always correlate with the degree of skeletal involvement.

Early in the course of osteomalacia, the skeletal radiographs may show no abnormalities, even in the presence of moderate skeletal pain. Later, bony rarefaction and pathological fractures appear. However,



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even before there is evidence of skeletal rarefaction, characteristic pseudo-fractures may be apparent in such areas as the ribs, scapulae and pubic bones. Large pulsating blood vessels have been demonstrated in the region of the pseudofractures and have been postulated to be a factor in their formation.[2] However, it is possible that the increased vascularity in these regions may be a result of the active osteoid formation rather than the cause.

The histopathology of osteomalacia is characterized by an increased number in and width of osteoid seams per unit volume of bone in bone biopsies. Only recently has there been a determination of a satisfactory standard for normal values of osteoid seams occurring in different age groups.[3] However, conditions other than osteomalacia may exhibit excessive osteoid formation. For instance, it has been described in healing osteitis fibrosa cystica,[4] following beryllium administration,[5] and in osteopetrosis.[6] A reduction of serum calcium and/or inorganic phosphorus is therefore not always a prerequisite for the production of increased osteoid seams. After beryllium administration, for example, their presence might be explained on the basis of heavy metal interference with certain enzymes important in normal osteoid mineralization.

Osteoporosis as an accompaniment to osteomalacia should always be kept in mind. In some instances, this is related to the enforced inactivity from the severe pain of osteomalacia. In other instances, such as chronic biliary cirrhosis, protein deficiency as a result of the liver disease and intestinal malabsorption may be an additional adverse factor favorable to the development of osteoporosis. Once the diagnosis of osteomalacia has been established, it is necessary to consider the many etiologic possibilities for the condition.

Etiologic Factors

Dietary deficiency of calcium and vitamin D are only rarely seen in this country as a cause of osteomalacia. Adequate vitamin D rather than calcium in the diet is the more critical factor in prevention of the disease. This is less true in pregnancy and lactation where the increased demands for calcium must be considered.

The most common cause of osteomalacia in this country is that associated with steatorrhea with its many diverse etiologies. In this instance, there is defective absorption of calcium, but again more critical is the defective absorption of vitamin D. An exception occurs in the steatorrhea of some forms of pancreatic insufficiency where vitamin D appears to be absorbed in adequate amounts and osteomalacia may not normally occur.[7] Diagnosis of osteomalacia may present a problem in patients where gross steatorrhea is not apparent; in such instances, only careful balance studies will reveal an abnormal fat loss in the stool.[8]

Next to be considered as etiologic factors in osteomalacia are the various renal tubular defects, including renal tubular acidosis and the Fanconi Syndrome. The entity idiopathic hypercalciuria considered by some authors to be a renal tubular defect was initially considered to result in osteomalacia, but there has been no convincing evidence forthcoming to prove this thesis.[9] Whether the condition of phosphate diabetes, also called primary vitamin D resistant osteomalacia, is due to a primary renal tubular reabsorption defect for phosphorus or to a primary resistance to the action of vitamin D with secondary hyperparathyroidism has not as yet been established.

The mechanism of osteomalacia in renal tubular acidosis and Fanconi Syndrome is multifactorial in each instance.[10] Initially, the skeletal disorder in tubular acidosis was thought to be due almost entirely to a large urinary loss of calcium considered to be excreted preferentially over hydrogen ion in the disease. However, not all cases of tubular acidosis with osteomalacia have excessive urinary calcium excretion, so other mechanisms for the bone disease have to be postulated. Hyperphosphaturia may in some instances be decisive, possibly aggravated by the systemic acidosis that is universally present. Several factors may play a role in the appearance of this hyperphosphaturia. The question of secondary hyperparathyroidism versus a separate primary renal tubular reabsorptive defect for phosphorus has not been easy to resolve. Potassium deficiency, so commonly seen in the disease and known to cause tubular damage, might theoretically lead to a tubular defect for phosphorus reabsorption. Also, correction of the systemic acidosis alone has been demonstrated to cause a fall in urinary phosphorus excretion.[11]

Perhaps hyperphosphaturia is an even more important factor in the osteomalacia of the Fanconi syndrome than in pure renal tubular acidosis. This stems from the fact that the urinary excretion of calcium has generally been found to be less marked in both the adult and infantile forms of Fanconi syndrome than in the latter condition.[11] However, defective intestinal absorption of calcium has also been demonstrated in the Fanconi syndrome and may be a significant pathogenetic factor in the etiology

of the osteomalacia. In addition, fecal phosphorus excretion has been found to be increased and probably adds to the total body depletion of phosphorus.

The condition phosphate diabetes or vitamin D resistant osteomalacia is receiving increasing attention. Winters and associates[12] have stressed the congenital and familial aspects, as well as the presence of asymptomatic hypophosphatemia, as important factors in case finding. In addition, there are scattered case reports where the earliest clinical features of the disease appeared in adulthood suggesting that acquired and non-familial forms do occur. Whether similar etiologies exist in both is difficult to determine. It is possible that a variety of etiological factors may lead to the same metabolic derangements seen in the condition.

Features common to both the congenital and acquired forms of refractory osteomalacia are the fasting treatment-resistant hypophosphatemia, the increased renal clearance of phosphorus in relation to the lowered serum phosphorus levels, a decreased intestinal absorption of calcium, and a failure to respond to average doses of vitamin D. Despite these similarities, there are several significant clinical differences.

The author has under observation four cases of familial, congenital refractory osteomalacia and two acquired, non-familial cases for comparison. Muscle weakness often so profound as to limit activity is more characteristic of the acquired form. In contrast, the children with the familial, congenital disease, all have good muscle strength and stamina. The cause of the muscle weakness in the adult acquired form is not clear. The hypophosphatemia which, like hypokalemia, might be considered to lead to muscle weakness is comparable in both instances. The difference in age alone is not a factor since muscle weakness and adynamia are common in vitamin D deficiency rickets of infancy with similar levels of hypophosphatemia.

The lack of bone pain and tenderness in the children with congenital refractory rickets, as compared to the adults with the acquired disease, is another striking point of difference. None of the familial congenital patients is in any way limited by skeletal pain, whereas the patients who acquired osteomalacia in adulthood were bedridden before successful treatment, because of severe pain and skeletal tenderness in the back and lower extremities.

The congenital form of refractory rickets tends to remit clinically and radiologically during adolescence. While the hypophosphatemia in this instance may persist, the serum alkaline phosphatase tends to return towards normal. On the other hand, the untreated acquired form of refractory osteomalacia tends to be progressive in nature.

The pathogenesis of vitamin D resistant rickets and osteomalacia is actively being considered in several centers. The resistance to average doses of vitamin D in the disease and the partial temporary improvement with massive vitamin D therapy has led many investigators to assume that a primary resistance to the vitamin is perhaps the main etiological factor. However, vitamin D when used in massive doses may well have an entirely different mode of action than when used in the average amounts necessary for cure and prophylaxis of deficiency rickets and osteomalacia.[13] The fasting hypophosphatemia in the disease often persists even after massive vitamin D therapy, despite apparent bone healing in some cases. This is suggestive of a difference in action of the vitamin at these high dosage levels, since in deficiency rickets and osteomalacia there is early correction of the hypophosphatemia with administration of relative small amounts of the vitamin.

While the observed defect in intestinal absorption of calcium in refractory osteomalacia might best be explained on the basis of defective vitamin D action, the well documented relative hyperphosphaturia is more difficult to explain on this basis. Those favoring the theory of vitamin D resistance have explained the hyperphosphaturia on the basis of secondary hyperparathyroidism. Indeed, there has been documented histologic evidence of secondary hyperparathyroidism in some, but not all cases of refractory osteomalacia. The proof that this histologic evidence, when present, represents a hyperfunctioning state has not been demonstrated beyond doubt. In addition, a proven and persistent stimulus for secondary hyperparathyroidism in the condition is lacking. It is argued that initial hypocalcemia from defective intestinal absorption acts as such a stimulus. However, hypocalcemia has not always been observed in cases of the familial congenital forms, even when followed from birth. In none of the adult, acquired cases, so far as can be determined, has hypocalcemia been recorded.

The alternative theory has been to incriminate a primary renal tubular reabsorptive defect for phosphorus leading to hyperphosphaturia and osteomalacia. This theory is strengthened somewhat by the spectrum of cases described of primary phosphate diabetes on the one hand, to combinations with glycosuria and aminoaciduria simulating the Fanconi syndrome on the other. The latter is accepted by almost all authori-

ties as being due to a renal tubular abnormality and the demonstration of the "swan-neck" deformity in the proximal convoluted tubules of patients with the disease lends support to the thesis. This theory suffers, however, from the lack of explanation for the defective intestinal absorption of calcium that occurs in phosphate diabetes. In addition, there is evidence that the hyperphosphaturia can be decreased following the administration of intravenous calcium and after a low phosphorus diet.[14,15] This suggests that the renal tubular defect for phosphorus, whatever its nature, can be altered by the proper stimulus. This has been offered as evidence against the presence of a primary renal tubular defect, which perhaps might be considered to be of a more fixed nature and unresponsive to physiologic and pharmacologic stimuli. The above results following intravenous calcium have been explained on the basis of decreased parathyroid function, but there is no positive proof that this actually happens. Such proof will have to await more direct measures of parathyroid activity. It would seem theoretically possible that a primary physiological derangement of the renal tubules might also be influenced by the aforementioned stimuli and that it is not necessary to postulate their effects as resulting only from altered parathyroid function.

In the past, deficiencies of calcium ion rather than inorganic phosphorus usually have been considered to be more important in the mechanisms of rickets and osteomalacia. It usually has been stated that improved calcium absorption following the administration of vitamin D precedes the improved absorption of phosphorus. In other words, improved utilization of phosphorus has been considered to be dependent upon that for calcium. It is possible that this prime role for calcium has been over-emphasized.

The author has some evidence, at least in adult patients with acquired phosphate diabetes, that the administration of oral phosphate supplements has resulted in significant improvement. In one patient

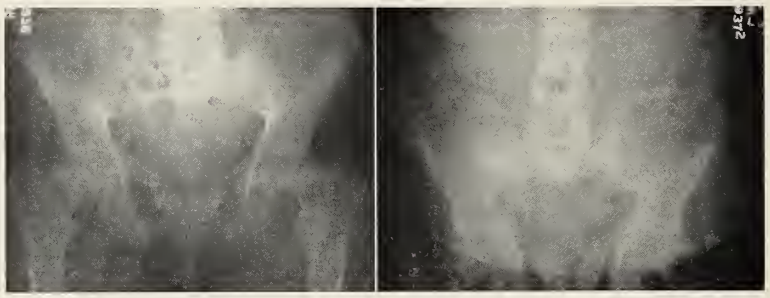


Fig. 1. *(left)* Pseudofractures in the pelvic radiograph of an adult-acquired case of phosphate diabetes. Five years of therapy with 100,000 to 180,000 units daily failed to result in improvement. *(right)* Nine months after addition of 2 grams oral phosphorus daily, considerable healing of pseudofractures is noted.

whose osteomalacia had been resistant to as much as 180,000 units of vitamin D daily for five years, the administration of oral phosphate supplements was followed by marked reduction in bone pain and tenderness, healing of pseudofractures by x-ray and improved calcium and phosphorus retention demonstrated in metabolic balances (Figs. 1A, 1B).[16] In another adult patient with the acquired disease, oral administration of phosphorus supplements alone was also accompanied by marked relief of bone pain and improved skeletal mineralization in the region of a pseudofracture in the pubis. For both patients, however, a continuing fasting hypophosphatemia and elevation of the alkaline phosphatase indicated that the metabolic derangement had not been fully corrected.

In instances such as these, it is suggestive that the phorus feedings resulted in improved skeletal utilization of calcium. This could only come about by improved intestinal absorption of the latter. It is possible that when oral phosphorus is given in amounts, adequate to transiently increase serum phosphorus levels, skeletal remineralization can temporarily proceed. The resulting utilization of serum calcium for this mineralization might then necessitate a secondary increase in calcium absorption. This explanation is compatible with the thesis that intestinal absorption of calcium proceeds at a rate which may be dependent upon the rate of skeletal mineralization.[17] It might then be postulated that it is the hypophosphatemic block of mineralization that is responsible for the apparent defective intestinal absorption of calcium in the condition under discussion. There is evidence that

oral phosphorus readily moves across the intestinal wall in phosphate diabetes, even in the absence of added vitamin D, and in the presence of simultaneously administered calcium.[18] It is possible, then, that the apparent defect in calcium metabolism in the disease is really dependent upon the more important defect in phosphorus metabolism.

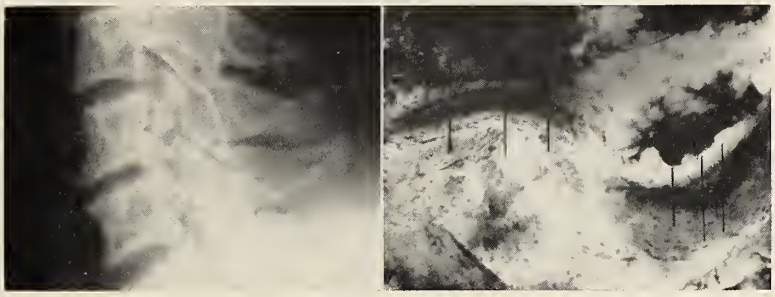


Fig. 2. *(left)* Lateral view of cervical spine in "axial osteomalacia" demonstrating a coarsened and irregular trabecular pattern, especially in the bodies of the vertebrae.

Fig. 3. *(right)* Undecalcified section of iliac crest in "axial osteomalacia" prepared by the method of Frost[3] demonstrating increased and thickened osteoid seams compatible with osteomalacic bone.

In contrast, oral phosphate supplements in the largest tolerated doses, administered over a period of a year, did not improve mineral balance or improve skeletal mineralization in three children with congenital, refractory rickets. The difference in response to phosphate feeding noted in children with the disease, as contrasted to that of the acquired, adult cases may be due to fundamental difference in pathogenesis. On the other hand, the higher normal levels for serum inorganic phosphorus in children must be taken into consideration. It is possible that the higher levels of inorganic phosphorus that normally may be necessary for skeletal mineralization in children cannot be achieved by the tolerated doses of oral phosphorus feedings. In the adults, the lower levels of inorganic phosphorus normally compatible with skeletal mineralization may well be gained by frequent maximally tolerated doses of oral phosphorus. Further evaluation of the role of oral phosphorus in phosphate diabetes is awaited with interest. It is possible that in adults with the acquired disease, oral phosphorus alone will achieve results as satisfactory as those seen with massive vitamin D therapy and without the danger of toxicity from the latter. For children, treatment with oral phosphorus may permit a reduction in the huge doses of the vitamin usually required for remission.

While it is generally considered that the skeletal disorder in phosphate diabetes is secondary to the hypophosphatemia, there has been evidence suggestive of an intrinsic abnormality in the bone itself.[19] However, the fact that cartilage from patients with resistant rickets will calcify when incubated in normal serum or in the serum of rachitic patients, when the calcium and phosphorus concentrations are restored to normal, indicates that the bone disease is more likely secondary to the hypophosphatemia.[20]

In the forms of osteomalacia so far discussed, serum depressions of calcium, inorganic phosphorus, or both are generally accepted as the cause of the decreased mineralization of osteoid tissue. It is equally possible that local factors in the matrix may be defective and retard the osteoid mineralization, even in the presence of normal levels of serum calcium and inorganic phosphorus. There are few proven examples of this latter possibility. Hypophosphatasia, where there is a general deficiency of the enzyme alkaline phosphatase, may be such an instance. The condition usually occurs in children, but has also been described in adults.[21] An important diagnostic clue is the detection of a possible substrate for alkaline phosphatase, phosphorylethanolamine, in the urine. While alkaline phosphatase is generally assumed to have some local significance in osteogenesis, its exact role has not as yet been fully defined.

Another form of osteomalacic bone disease in adults has recently been described.[22] A local defect in osteoid mineralization is considered to be at fault. In this condition, called "axial osteomalacia" by the authors, there is a unique irregular coarsening of the trabeculae of the axial skeleton, especially in the cervical spine (Fig. 2). The skull and long bones of the appendicular skeleton do not demonstrate roentgenologic evidence of the disturbed trabecular pattern. Histologic

study of open iliac crest biopsies reveals an increased number and thickness of the osteoid seams compatible with the diagnosis of osteomalacic bone (Fig. 3). In the cases reported, however, there are no changes in the values for serum calcium, inorganic phosphorus, or alkaline phosphatase suggestive of osteomalacia.

In the condition "axial osteomalacia," the authors postulated a local defect in the axial skeleton as being responsible for the disturbed trabecular pattern and the osteomalacic bone. Furthermore, whatever the nature of this defect, it was absent in the skull and long bones of the appendicular skeleton. Bone biopsy, especially the study of undecalcified bone sections, was helpful in determining that osteomalacic bone actually was present. It is suggested that as yet undetected local cellular defects in osteoid tissue may be a more common cause of primary osteomalacic bone disease than is now realized. Such defects should be considered in the various etiologies of osteomalacia in addition to the known secondary osteomalacic conditions associated with depressions of serum calcium, inorganic phosphorus or both.

Summary

In this review, an attempt has been made to consider the diagnostic criteria and etiologic factors for the metabolic bone disease, osteomalacia. It is suggested that further varieties of osteomalacic bone will be uncovered with the more frequent consideration of local cellular defects in osteoid mineralization, in addition to the known general pathogenetic disturbances in calcium and phosphorus metabolism. More common usage of bone biopsy, especially the study of undecalcified bone sections, is indicated in ill-defined medical bone diseases. Recent improvements in preparation and study of bone sections will, no doubt, change our present day concepts of medical bone disease and may help uncover heretofore undescribed bone syndromes.

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Michigan's Blue Shield

The Publication Committee and the Editor are happy to dedicate this number of THE JOURNAL to Michigan Medical Service. This has become an annual affair, being the fourteenth number in succession in June of each year since 1949. Thus Michigan Medical Service has presented to our membership, reports, messages, financial and other statements in an effort to keep the Michigan State Medical Society as well informed as possible on the problems and accomplishments of Michigan Medical Service.

Happily, this year there can be a report of successful endeavors through a very trying period. Michigan Blue Shield is in extra good condition, both financially and in services rendered, also with a new and enthusiastic administration both from the standpoint of the younger Board in control and a very outstanding business and economic administration. Mr. Sumner Whittier, secured for our services last year, has been carrying through with an experienced and basic knowledge of our problems. We have changed from a corporation running on a deficit, to one building up a reserve.

Operations, technical and otherwise, are much improved, and payments to doctors are being made much more rapidly. Michigan Medical Service did get a rate increase, not what had been asked—but one which is working out at the present time. Blue Shield has been through a series of unfriendly hearings before the Insurance Commissioner; a final report from the McNerney Study necessitating weeks of study to interpret, then a rehearing by the Governor's Commission.

These last hearings were a marked improvement on the previous ones, being quiet, well-conducted, without bombast and without lost tempers. What the Commission will finally report remains to be seen, but in the hearings, the questions of the unnecessary adverse publicity through public hearings when the Blue Shield and Blue Cross asked for a readjustment of premiums, has been materially stressed. Other insurance companies are not required to go through this degradation and harassment, and other prepayment plans bypass the Commission entirely. The Blues should be given the same fair play. We hope the Commission will see that point.

We commend this Blue Shield number of THE JOURNAL to the general perusal of our membership, as has been done for the past fourteen years.

Care of the Aged and Others

The Federal administration, the President, or some of his representatives, are keeping the question of medical care of the aged constantly before the public. Every effort is being made through

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every source possible to discredit the Kerr-Mills Act which is in operation by act of Congress, and which, when allowed to do so, is caring for the senior citizens with lower or inadequate incomes. The indigent are being cared for according to the provisions of the laws which have been in existence for many years. They shouldn't be covered by the totally improper Social Security Tax on low incomes. In Michigan, the former Commissioner of the Poor and later the Department of Social Welfare have always paid inadequate amounts. Three years ago, the State assumed more responsibility and did begin to pay somewhat better rates for the hospitalization and medical care of these sick people and crippled children.

Some place along the line, in certain areas, the plan was adopted to pay only 50 per cent, sometimes 60 per cent or 70 per cent of the actual costs of services, both to the doctors and to the hospitals. Gradually, various areas have accepted a basis of paying actual certified costs to hospitals. Kerr-Mills now takes care of its groups, but in some areas the rate paid is only 70 per cent of actual cost, which means the hospital itself loses money every time it has one of these indigent, low income patients, or patients who are under the benefits and responsibilities of the government bureaus.

The Michigan State Medical Society has been urging the legislature to authorize these payments at not less than cost. If that were done, the Kerr-Mills Act could be completely operative in Michigan. This same problem has developed in other states. Reports have come that the Kerr-Mills Act is inoperative, not because it isn't doing a job but because not enough people are coming in and getting services under it. We had the report in Michigan that out of approximately 60,000 persons eligible for services under that Act, only about 12,000 came in last year. Insurers would consider this to be a very effective and efficient operation of the Act—those people got their services, 20 per cent of people using the services is really a fairly large percentage. That was the criticism of Kerr-Mills last year, that it used up only about $1.3 million instead of 10 or 15 millions anticipated. This publicity came out through effort from Washington to discourage the people with the Kerr-Mills Law which we do have, and to switch them over to the King-Anderson *Social Security Bill* which the administration is pushing with all its might.

The King-Anderson Bill is an attempt to put the care of the Social Security beneficiaries under Social Security. As it has been advertised and explained, a great many of these older people who would benefit, think it includes all sorts of medical care and other benefits. It does not. King-Anderson was advocated to take care of the older people (16½ million of them) who have inadequate income. No medical attention whatever is provided except some free service done by interns and house physicians, and some work done in the hospital by radiologists and anesthesiologists, pathologists and physiatrists.

The President told us that he was going to demand that that Bill (King-Anderson HR 4222) be passed this year. His cohorts are pushing it and they are entering into other problems in the field of medicine. We had a blast just recently about the delay of the profession in putting new medical discoveries into effect; the failure to vaccinate all the children and others for polio, and other diseases. The proposal was that the health department see to it that these programs be carried out.

Pharmaceutical Harassment

Senator Kefauver has been attacking one after another of the great pharmaceutical houses and others in the research and manufacture of drugs. Just recently, Kefauver brought up the question of hearing aids and their extreme expense, listing them from $275 to $750. One could pay that amount for hearing aids if he wished, but very satisfactory ones can be bought much cheaper. It is not necessary to recall all of these threats and hindrances against the practice of medicine. They bear out the plan which started a year or more ago, that the administration is going to force through Congress, putting all these people under Social Security.

The profession is putting up a tremendous fight, but the steel experience is a warning that we must not let up in the fight. The profession has cared for these older people. We have the facilities, we have our Blue Cross and Blue Shield, we have our doctors ready and willing to do their work.

The President's comment in his speech to the public on April 11, had direct relation to the pharmaceutical industry. He demanded that some provision be made whereby, before a new pharmaceutical product (or an old one) was put on the market, there must be a thorough investigation and complete proof that there is nothing harmful in the drug, that it has been thoroughly investigated and that it will

be completely and absolutely safe. He suggested other Bills in Congress.

There is a Bill in Congress now (S-1552), which has been in process for a considerable length of time and has been the excuse for a considerable amount of Senator Kefauver's investigations. This Bill would require compulsory licensing of drug patents after three years, with a provision that then anybody could make these preparations. Apparently, the intent is to force new drugs and preparations into the open so that the costs can be reduced and everyone benefit from the tremendous research studies. Profits and benefits would be lost to the company which had done the enormous research program.

Such a Bill, if enacted, would surely handicap the pharmaceutical interests. Who would provide the millions of dollars being expended in independant research, to develop new drugs, chemicals and procedures? This sort of thing would discourage any manufacturer and would very seriously handicap progress in this whole field. The only justification we can see in this is that the government take over the whole research program and then license the various companies to manufacture the products. The propositions which the President mentioned in additional drug legislation were: a restriction on drug patents, proposal for federal licensing of drug manufacturing, a proposal for federal certification of every batch of antibiotics, and the proposal that all advertising of drugs directed to physicians repeat the same data that are included in the drug package inserts. This would involve a complete diversion of the patent and other laws which protect the inventor, discoverer and producer in his right to benefits by his inventive or research genius.

This looks like complete federal control of the pharmaceutical business which would make us very close to a welfare state. Some of us remember during the depression years of the thirties when the federal and state governments sent agents around to the various counties to administer the care of the poor and jobless persons with no income. We were issued yellow sheets of printed formulae listing the drugs, the pharmaceuticals and other materials which we could prescribe for those patients. Anything other than those on that particular list was held up or could be used only after a very sharp scrutiny from these investigators or administrators.

We hope this new proposal from the President will not take us back to that situation of the early Roosevelt years. These restrictions would discourage any pharmaceutical company from the tremendous research work now being done in many fields. Some are searching for cancer cures, are doing hundreds of thousands of research problems, studying samples of soil, samples of drugs, samples of almost anything imaginable which could contribute to our increased knowledge and could possibly present an antibiotic or a virus which might be the find of the century. All the big pharmaceutical research houses are in that study now and have large staffs and scientists doing this experimental work. This incentive would be gone if the newly proposed laws were enacted.

A Caution

We must caution our doctors that they must, by their cooperation, help to assure that medical profession programs are carried out. All one needs to remember is the U. S. Steel experience. The President, by using his authority and his powers, absolutely crushed the whole steel industry. He made them withdraw their price advance announcement, in spite of the fact that his administration and representatives had forced them to accept a contract with labor which cost 10 cents an hour more in fringe benefits than what had been paid.

The medical profession can draw only one conclusion from the program just established and being followed. The same tactics could be tried on us. We must be prepared. We must be united, and we must be ready. The President warned us a year ago, and again just recently.

THE REAL TRANSGRESSION

The sin in the orbit of the Kefauver hearings and his proposed new legislation lies *not* in the cost of drugs to the public; *not* in the accepted successful methods and sound traditional practices of pharmacy and medicine; nor is it in the economic system under which an American health team operates and serves the public. The real transgression is the tampering and meddling of certain misguided politicians with a progressing, dynamic plan of health care that is serving our American people so bountifully and so well. And I have the horrible suspicion that this tampering and meddling arises not so much from a sincere-at-heart design for the good of the people as it does from the motives of political expediency and selfish advantage.—Nelson M. Gampfer, Chairman of the Board, The Wm. S. Merrell Company, to the Kentucky Pharmaceutical Association.

Michigan State Medical Society

Ninety-Seventh Annual Session



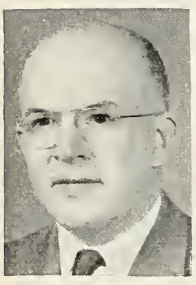
O. B. McGillicuddy, M.D.
Lansing
Council Chairman



Otto K. Engelke, M.D.
Ann Arbor
President



J. J. Lightbody, M.D.
Detroit
Speaker



D. Bruce Wiley, M.D.
Utica
Secretary

OFFICIAL CALL

The Michigan State Medical Society will convene in Annual Session in Detroit, Michigan, September 23-24-25-26-27-28, 1962. The provisions of the Constitution and Bylaws and the Official Program will govern the deliberations.

Otto K. Engelke, M.D.
President
O. B. McGillicuddy, M.D.
Council Chairman
J. J. Lightbody, M.D.
Speaker
H. F. Falls, M.D.
Vice Speaker

Attest:
D. Bruce Wiley, M.D., *Secretary*



H. F. Falls, M.D.
Ann Arbor
Vice Speaker

THREE-DAY SESSION OF HOUSE OF DELEGATES

September 23-24-25, 1962

First Meeting—Sunday, 8:00 p.m.

The 1962 House of Delegates of the Michigan State Medical Society will hold a three-day session beginning Sunday, September 23, at 8:00 p.m. The business of the House of Delegates will be transacted in the Grand Ballroom of the Sheraton-Cadillac Hotel, Detroit.

The House will meet also on Monday, September 24 at 9:00 a.m. and 8:00 p.m. and on Tuesday, September 25, at 9:00 a.m. and at 8:00 p.m.

SEATING OF DELEGATES

"A Delegate, or in his absence, an Alternate Delegate (in order of seniority) becomes a member of the House of Delegates when duly registered and seated at the Annual Session following his election and certification by the component County Society. Once seated a Delegate shall remain a Delegate throughout the entire Session and thereafter until the next Annual Session of the House of Delegates and his place shall not be taken by any other Delegate or Alternate Delegate except that in case of emergency the House of Delegates may seat a duly accredited Alternate Delegate from the same component County Society. Any Delegate-Elect not present to be seated at the hour of call of the first meeting may be replaced by the accredited Alternate Delegate next on the certified list furnished by his component County Society."—MSMS Bylaws, Chapter 9, Section 4.

Michigan State Medical Society

Ninety-Seventh Annual Session

HOUSE OF DELEGATES
SHERATON-CADILLAC HOTEL, DETROIT,
SEPTEMBER 23-24-25, 1962

ORDER OF BUSINESS

SUNDAY, SEPTEMBER 23, 1962

Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

6:00 p.m.—Registration

8:00 p.m.—First Meeting

1. Call to Order by Speaker
2. Report of Committee on Credentials
3. Roll Call
4. Prayer
5. Appointment of Reference Committees
   - (a) On Reports of Council
   - (b) On Reports of Officers
   - (c) On Reports of Standing Committees
   - (d) On Reports of Special Committees
   - (e) On Constitution and Bylaws
   - (f) On Resolutions
   - (g) On Rules and Order of Business
   - (h) On Legislation and Public Relations
   - (i) On Hygiene and Public Health
   - (j) On Executive Session
   - (k) On Medical Service and Prepayment Insurance
   - (l) On Emergency Medical Service
   - (m) On Ways and Means
   - (n) On Miscellaneous Business
6. Speaker's Remarks—J. J. Lightbody, M.D., Detroit
7. President's Remarks—Otto K. Engelke, M.D., Ann Arbor
8. President-Elect's Remarks—C. I. Owen, M.D., Detroit
9. Annual and Supplemental Reports of The Council —O. B. McGillicuddy, M.D., Lansing, Chairman of The Council
10. Report of Delegates to American Medical Association—Wm. A. Hyland, M.D., Grand Rapids, Chairman
11. Brief of Annual Report of Woman's Auxiliary—Mrs. C. I. Owen, Detroit
12. Brief of Annual Report of Michigan State Medical Assistants Society—Miss Cecile Rutan, Hanover
13. Report on Michigan Medical Service

MONDAY, SEPTEMBER 24, 1962

Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

9:00 a.m.—Second Meeting

14. Supplemental Report of Committee on Credentials
15. Roll Call
16. Awards:
    - (a) Certificates of Commendation
    - (b) Fifty-year Awards
17. Resolutions
18. Reports of Committees of the House of Delegates
    - (A) Committee to Study Association Between MSMS and Michigan Medical Service
    - (B) Committee on "Certificates of Commendation"
    - (C) Standing Committee on Constitution and Bylaws
    - (D) Committee to Study Problem of Indigent or Ill Physician
    - (E) Committee to Study Relationship Between Doctors of Medicine and Osteopaths
    - (F) Committee on Relative Value
19. Reports of MSMS Standing Committees
    - (A) Committee on Postgraduate Medical Education
    - (B) Public Health Committee
      - (1) Committee on Cardiac Disease Control
      - (2) Committee on Maternal Health
      - (3) Committee on Venereal Disease Control
      - (4) Committee on Tuberculosis Control
      - (5) Committee on Cancer Control
      - (6) Committee on Occupational Medicine
      - (7) Committee on Mental Health
      - (8) Committee on Child Welfare
      - (9) Committee on Geriatrics
      - (10) Committee on Rural Medical Service
      - (11) Committee on Blood Banks
      - (12) Committee on Highway Accident Prevention
      - (13) Committee on Diabetes Control
      - (14) Committee on Iodized Salt
    - (C) Committee on Public Relations (and Sub-Committees)
    - (D) Committee on Ethics
    - (E) Committee on Legal Affairs
    - (F) Committee on Mediation
    - (G) Advisory Committee to the Woman's Auxiliary of the MSMS
    - (H) Advisory Committee to the Michigan State Medical Assistants Society
    - (I) Committee on Professional Insurance Plans
    - (J) Committee of Past Presidents

MONDAY, SEPTEMBER 24, 1962

Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

8:00 p.m.—Third Meeting

20. Supplemental Report of Committee on Credentials
21. Roll Call
22. Unfinished Business
23. New Business
24. Reports of Reference Committees
    (a) On Reports of Council
    (b) On Reports of Officers
    (c) On Reports of Standing Committees
    (d) On Reports of Special Committees
    (e) On Constitution and Bylaws
    (f) On Resolutions
    (g) On Rules and Order of Business
    (h) On Legislation and Public Relations
    (i) On Hygiene and Public Health
    (j) On Executive Session
    (k) On Medical Service and Prepayment Insurance
    (l) On Emergency Medical Service
    (m) On Way and Means
    (n) On Miscellaneous Business

TUESDAY, SEPTEMBER 25, 1962

Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

9:00 a.m.—Fourth Meeting

25. Supplemental Report of Committee on Credentials
26. Roll Call
27. Unfinished Business
28. New Business
29. Supplemental Reports of Reference Committees

TUESDAY, SEPTEMBER 25, 1962

Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

8:00 p.m.—Fifth Meeting

30. Supplemental Report of Committee on Credentials
31. Roll Call
32. General Meeting of the Michigan State Medical Society
    Presiding: Otto K. Engelke, M.D., President
    Installation of New President: C. I. Owen, M.D., Detroit
33. Unfinished Business
34. Supplemental Report of The Council
35. Supplemental Reports of Reference Committees
36. Elections
    (a) Councilors
        7th District—John J. Coury, M.D., Port Huron—Incumbent
        8th District—Earle S. Oldham, M.D., Breckenridge—Incumbent
        10th District—Orlen J. Johnson, M.D., Bay City—Incumbent
    (b) Delegates to American Medical Association
        Wm. Bromme, M.D., Detroit—Incumbent
        R. L. Novy, M.D., Detroit—Incumbent
        G. W. Slagle, M.D., Battle Creek—Incumbent
    (c) Alternate Delegates to American Medical Association
        C. I. Owen, M.D., Detroit—Incumbent
        R. E. Rice, M.D., Greenville—Incumbent
        D. N. Sweeny, Jr., M.D., Detroit—Incumbent
    (d) President-Elect
    (e) Speaker of the House of Delegates
    (f) Vice Speaker of the House of Delegates
37. Adjournment

FORM FOR RESOLUTIONS TO HOUSE OF DELEGATES

All resolutions, special reports, and new business shall be presented in writing in triplicate (Bylaws, Chapter 9, Section 13).

Title of Resolution

Submitted by _____ M.D. of

_____ County Medical Society

Whereas, the _____

_____

Whereas, it is _____

_____

_____, therefore be it

RESOLVED: That _____

_____

_____

Each Delegate is invited to send copy of all resolutions to Speaker J. J. Lightbody, M.D., Box 152, East Lansing.

MICHIGAN MEDICAL SERVICE SCHEDULE

Tuesday, September 25, 1962

12:30 pm Preprandial Refreshments, English Room, Sheraton-Cadillac Hotel

1:00 pm Luncheon, English Room, Sheraton-Cadillac Hotel

2:00 pm Meeting of Members of the Corporation, Grand Ballroom, Sheraton-Cadillac Hotel

All MSMS Delegates are members of Michigan Medical Service Corporation and are expected to attend the MMS Luncheon and Annual Meeting. The MMS Annual Meeting is open to ALL members of the medical profession, who are cordially invited to attend.



Welcome to another year of Lederle Symposia

Recognizing that the exchange of ideas is fundamental to medical progress, Lederle continues its Symposium program with the 11th year of scheduled meetings. Through these Symposia, sponsored by medical organizations with our cooperation, over 55,000 physicians have had the opportunity to hear and question authorities on important advances in clinical medicine and surgery. You have a standing invitation to attend any of these Symposia with your wife for whom a special program is planned.

SPOKANE, WASHINGTON
Saturday, June 2, 1962
The Davenport Hotel

BIRMINGHAM, ALABAMA
Saturday, June 2, 1962
Dinkler-Tutwiler Hotel

WASHINGTON, D. C.
Saturday, June 9, 1962
Marriott Motor Hotel

LAND O'LAKES, WISCONSIN
Sunday, June 17, 1962
King's Gateway Hotel and Inn

EAU CLAIRE, WISCONSIN
Wednesday, June 20, 1962
The Eau Claire Hotel

ATLANTA, GEORGIA
Wednesday, July 18, 1962
The Hotel Dinkler Plaza

SAN ANTONIO, TEXAS
Sunday, September 9, 1962
The Granada Hotel

CLARKSBURG, WEST VIRGINIA
Sunday, September 9, 1962
The Stonewall-Jackson Hotel

TYLER, TEXAS
Wednesday, September 12, 1962
Carlton Hotel

KANSAS CITY, KANSAS
Friday, September 14, 1962
Battenfeld Auditorium

WOODSTOCK, VERMONT
Wednesday, September 19, 1962
The Woodstock Inn

NIAGARA FALLS, ONTARIO
Saturday, September 29, 1962
Sheraton-Brock Hotel

RAPID CITY, SOUTH DAKOTA
Saturday, October 6, 1962
Holiday Inn

FINDLAY, OHIO
Thursday, October 11, 1962
The Findlay Country Club

HONOLULU, HAWAII
Sunday, October 21, 1962
The Princess Kaiulani Hotel

NEWARK, NEW JERSEY
Sunday, October 28, 1962
Robert Treat Hotel

SANTA BARBARA, CALIFORNIA
Saturday, November 3, 1962
Santa Barbara Biltmore Hotel

INDIANAPOLIS, INDIANA
Wednesday, November 7, 1962
Marott Hotel

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Say you saw it in the Journal of the Michigan State Medical Society

MICHIGAN DEPARTMENT OF HEALTH

ALBERT E. HEUSTIS M.D., State Health Commissioner

Change in VD Regulations

Recently, the State Health Council approved a change in the rules and regulations for the discovery and control of venereal disease.

Basically, this change requires the reporting of designated laboratory tests done in conjunction with the diagnosis of venereal diseases. Such action is in line with the recommendations of the task force on syphilis created last year by the Surgeon General. Other states which have recently adopted regulations requiring reporting of positive tests for venereal disease are Kentucky, North Carolina, Pennsylvania, and South Carolina.

The screening of these positive tests will allow the health department to better assist the private physician in the follow-up of patients. Foremost among such services are epidemiological assistance and medical consultation. These changes were then approved by the Attorney General as to form and legality, adopted by the State Health Commissioner, and have been filed with the Secretary of State as required by law and have been distributed to members of the legislature. The amended rules and regulations became effective with their publication in the State Administrative Code on May 15, 1962.

The amended rules and regulations read as follows:

Authority: Act 272 of the Public Acts of 1919 (M.S.A. 14.341 et seq.) (329.151 et seq., C. L. 1948) Act 6 of the Public Acts of 1942, Second Extra Session (M.S.A. 14.345 et seq.) (329.201 et seq., C. L. 1948).

Regulation No. 1 of the Venereal Disease Regulations (R 325.53, State Administrative Code, 1954, page 2216) is hereby amended to read as follows:

1. In cities, counties and districts having full-time health officers, reports of venereal disease cases and suspected cases shall be made to the full-time local health officer. In cities and counties without full-time health officers, reports of venereal disease cases and suspected cases shall be made directly to the state health commissioner.

The Venereal Disease Regulations (R 325.53, State Administrative Code, 1954, page 2216) are also amended by adding three new subsections 1A, 1B, and 1C as follows:

1A. Supervisors of laboratories registered under Act 45, Public Acts of 1931, shall submit to the directors of full-time local health departments or in the absence of the same to the state health commissioner, reports of all tests for venereal diseases as follows:

(1) All reactive (positive) and weakly reactive (doubtful) serologic tests for syphilis;

(2) All reactive (positive) and weakly reactive (doubtful) spinal fluid serologic tests for syphilis;

(3) All positive darkfield microscopic tests for treponema pallidum;

(4) All positive gonococcal smears or cultures;

(5) All positive tests indicating the presence of the ducrey bacillus or donovan bodies.

These reports shall include:

(1) The name of the laboratory.

(2) The name of the test, the date performed, and the result;

(3) The name and location of the physician who submitted the specimen;

(4) The name of the patient, and if available, his sex, age and address;

(5) The signature of the supervisor of the laboratory.

Reports of the above-named laboratory tests shall be submitted periodically, but at least twice a month except that positive darkfields shall be reported within 24 hours. If no reportable tests are performed during any month, a statement to this effect shall be submitted by the supervisor of the laboratory before the fifth usual working day of the month next following.

1B. The local health officer or the state health commissioner or their authorized representatives shall in each case attempt to work through the patient's physician in the follow-up of the aforementioned reports of positive laboratory tests.

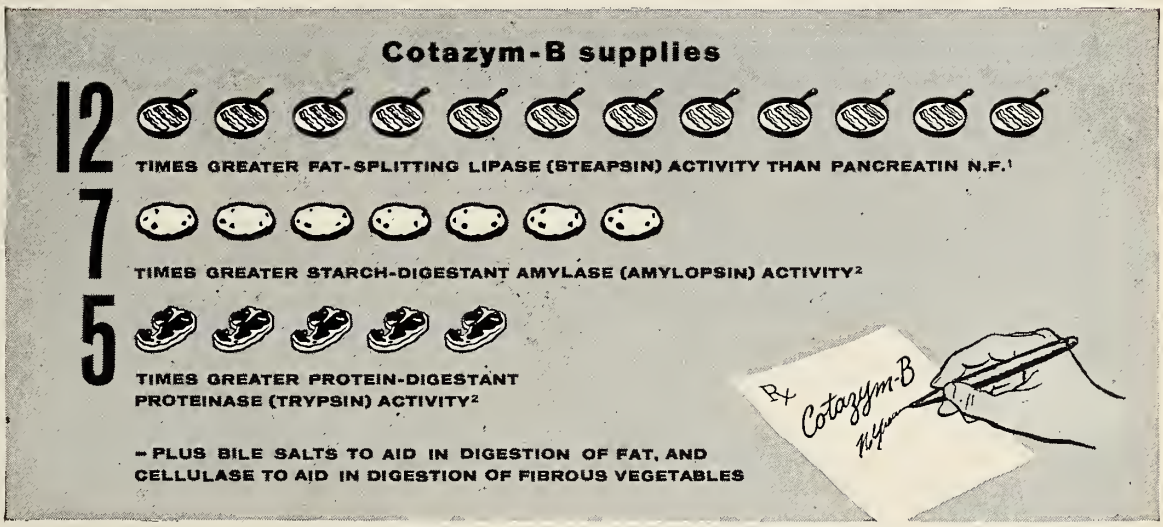
1C. In accordance with the provisions of Act 272, Public Acts of 1919, as amended, the reports of all positive tests submitted in compliance with these rules and regulations are hereby declared to be confidential and not public records except in such actions as may be necessary to enforce the venereal disease laws and the rules and regulations adopted thereunder.

It is our conviction that the above regulations are in the public interest. They will provide for better reporting and will allow the private physician, the laboratories, and the health department to more effectively work together to reduce the incidence of venereal disease through early diagnosis, better investigation of sources and distribution contacts, and earliest possible treatment of infected persons.

The goal of syphilis eradication is attainable but it will only be brought about through the continued efforts of all persons in a position to lend support, including both the professional and non-professional public servants and private individuals.

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Dosage: 1 or 2 tablets with water just before each meal.

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REFERENCES: 1. Best, E. B., Hightower, N. C., Jr., Williams, B. H., and Carobasi, R. J.: South. M.J. 53:1091, 1960. 2. Analytical Control Laboratories, Organon Inc. 3. Best, E. B., et al.: Symposium at West Orange, N. J., May 11, 1960. 4. Thompson, K. W., and Price, R. T.: Scientific Exhibit Section, A.M.A., Atlantic City, N. J., June 8-12, 1959. 5. Weinstein, J. J.: Discussion in Keifer, E. D., Am. J. Gastro. 35:353, 1961. 6. Ruffin, J. M., McBee, J. W., and Davis, T. D.: Chicago Medicine, Vol. 64, No. 2, June, 1961. 7. Berkowitz, D., and Silk, R.: Scientific Exhibit Section, A.M.A., New York, June 25-30, 1961. 8. Berkowitz, D., and Glassman, S.: N. Y. St. J. Med. 62:58, 1962.

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News Briefs

HONORED—Ralph V. August, M.D., Muskegon Heights, received the Gold Award of Achievement from the American Society of Abdominal Surgeons for his contributions to the program of surgical education. Doctor August earned many points toward the award by writing for various professional journals. He was unable to receive the award in person because he was convalescing at the time after undergoing surgery in Muskegon.

* * *

NAMED TO HEALTH BOARD—Two doctors were appointed recently by Detroit Mayor Cavanaugh to the Detroit Board of Health. Those appointed were Thomas P. Batchelor, M.D., and John F. Cotant, M.D. Doctor Batchelor succeeds Ernest Stefani, M.D., and Doctor Cotant succeeds Robert L. Novy, a 21-year veteran on the board.

* * *

U-M GRANTS—Gifts and bequests totaling $117,320.15 were accepted in April by the Regents of The University of Michigan. Among the medical grants were these: From the estate of Frederick E. Walton of Owosso, the Regents accepted $39,760.70 for the Frederick E. and Maud Walton Research Fund which is for research in diseases of the heart and in cancer.

American Medical Association Education Research Foundation, Chicago, has given $18,606.25 for use in research at the Medical School. The money was contributed by U-M alumni.

The Regents accepted $6,000 from E. R. Squibb & Sons, New York, for the Organ Transplantation Fund which is under the direction of Charles G. Child, III, M.D., chairman of the Department of Surgery.

* * *

AEROSPACE HONOR—Robert J. Benford, M.D., Medical Relations director for the Pharmaceutical Manufacturers Association, is the recipient of the 1962 award by the Aerospace Medical Association for outstanding achievement in aerospace medicine. Benford joined the PMA staff in 1960, following his retirement from the United States Air Force. He had served as editor of *Aerospace Medicine*, formerly the *Journal* of Aviation Medicine, for the previous five years.

* * *

PICK BATTLE CREEK—Demonstration shelter studies are being conducted in 14 cities for developing control plans and procedures to be used as guidance by local civil defense directors. The cities chosen for this test are: White Plains, N. Y.; Baltimore, Md.; Washington, D. C.; Raleigh, N. C.; Tallahassee, Fla.; Battle Creek; Indianapolis, Ind.; Springfield, Ill.; Houston, Tex.; Los Alamos, N. M.; Boise, Idaho, and Olympia, Washington.

* * *

GRANTS GROW—More than 300 agencies throughout the nation received grants totaling $631,674 from the Smith, Kline & French Foundation during 1961, the trustees have announced. Last year's grants raised the amount distributed by the Foundation since its establishment in 1952 to $4,657,898. Michigan received three grants totaling $6,000.

MANAGEMENT OF MASS CASUALTIES—The Army Medical Service has announced that it has completed arrangements for postgraduate professional short courses on "Management of Mass Casualties" as follows:

Medical Field Service School.....October 8-12, 1962
Brooke Army Medical Center,
Fort Sam Houston, Texas.....March 25-29, 1963
Walter Reed Army Institute of Research,
Washington 12, D. C.....Oct. 30-Nov. 1, 1962

Under the quota allotted to the AMA Department of National Security, spaces are open for ten civilian physicians to attend each of the above courses. Those desiring to attend one of the courses should write to the AMA Department of National Security, 535 North Dearborn Street, Chicago 10, Illinois.

* * *

ATTEND COURSES—Thomas V. Kretschmer, M.D., and Tad Lonergen, M.D., both of Saginaw, attended the recent course on the Management of Mass Casualties at Brooke Army Medical Center, Fort Sam Houston, Texas.

* * *

READY TO INTERN—One hundred eight new doctors from The University of Michigan Medical School will begin their internship training at 26 Michigan hospitals July 1. They are among a total of 169 men and women expected to receive the coveted Doctor of Medicine degree from the U-M. Of the men beginning internships outside of Michigan, many are taking assignments in the U. S.. Public Health Service and Armed Forces hospitals.

* * *

WAYNE GRANTS—Gifts and grants totaling $172,700 were accepted in April by Wayne State University's Board of Governors. The College of Medicine received $155,422 of the total for research projects. Largest single grantor was the U. S. Public Health Service, National Institutes of Health, providing for training program in medical cardiology directed by Richard J. Bing, M.D., $42,000; postgraduate training in psychiatry directed by Paul Lowinger, M.D., $39,880; dermatological research directed by Hermann Pinkus, M.D., $27,140; research on fluorine and its effect on dentition when given from infancy—directed by Drs. Frederick J. Margolis and Howard Mehaffie, $14,662; experimental pulmonary cancer in monkeys directed by Arthur J. Vorwald, M.D., $13,800.

The American Heart Association awarded a grant of $15,730 to continue research in cardiac metabolism directed by Dr. Bing.

* * *

U-M EXPANSION—Three new patient facilities are being completed at The University of Michigan Medical Center as the result of a $2,500,000 renovation program started last year. A Clinical Research Unit will contain

(Continued on Page 800)



BRIGHTON HOSPITAL

A non-profit foundation

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A facility designed to rehabilitate or to aid the addict in arresting his addiction.

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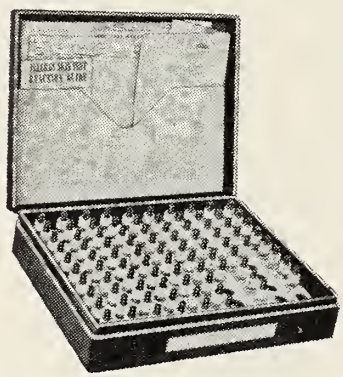
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(Continued from Page 798)

accommodations for 20 patients—all volunteers—suffering from various metabolic, surgical and medical disorders. Funds for this unit were supplied by the U. S. Public Health Service.

Extensive renovations, now partially finished, are creating a new Physical Medicine and Rehabilitation Unit in another wing of University Hospital. When completed, it will provide new medical examination areas, physical and occupational therapy and orthetics and prosthetics services. Construction costs of more than $1,500,000 are being paid by matching state and federal funds.

The third area, for the intensive treatment of severe burns, has just opened. This is a six-bed unit with an adjoining small operating room for skin grafts and other procedures.

* * *

DRUGS—W. S. Merrell Company with the cooperation of the Federal Food and Drug Administration is withdrawing MER/29 from the market and calling in all unused. This decision is based on additional reports of side effects of the kind reported to you in our letter of December 1, 1961, some of which have occurred at the usual dosage. It is recommended that you have your patients discontinue use of MER/29.

The New York City Health Department has banned drug store sales of Monase, a drug used to treat depression. The action followed reports that four persons who used the drug had died and three others had suffered serious illnesses, the department said.

In Washington, a spokesman for the Food and Drug Administration said the manufacturer, the Upjohn Company of Kalamazoo, Michigan, had agreed with FDA officials to recall Monase from the market.

* * *

POLIOMYELITIS DOWN—Only 864 new cases of paralytic polio were reported in 1961. This is a rate less than 5 cases per million population, as compared with an estimated yearly average of 162 cases per million persons (1949-1954) preceding the advent of the Salk vaccine. This is a 97 per cent reduction in the annual toll of paralysis.

* * *

ESSAYS SOUGHT—The Annual Walter Reed Memorial Essay Competition is open to junior and senior students. Essays should be from 5,000 to 10,000 words in length on a clinical subject. Cash prizes will be offered. Information may be obtained from Abraham G. White, M.D., Director of Medical Education, The Brooklyn Hospital, 121 DeKalb Avenue, Brooklyn 1, New York.

* * *

ELECTED—Myron E. Wegman, M.D., Ann Arbor, is the new chairman of the medical advisory board of the American Leprosy Foundation-Leonard Wood Memorial. The foundation maintains laboratories in the Philippines and the United States.

* * *

NEW ARMY HOSPITAL—The Kenner Army Hospital at Fort Lee, Virginia, was dedicated recently. The hospital, occupying approximately 25 acres, was built at a cost of $3,926,000. It is the twelfth new hospital which the army has placed in operation within the past five years.

Say you saw it in the Journal of the Michigan State Medical Society

Michigan Authors

Kelly M. Berkley, M.D., Ann Arbor, "Studies on the Protective Effects of Clothing in the Production of Cutaneous Flash Burns," *Surgery, Gynecology and Obstetrics,* April, 1962.

J. Edward Berk, M.D., and **Sheldon M. Kantor, M.D.,** Detroit, "Demethylchlortetracycline-Induced Fluorescence of Gastric Sediment," *Journal American Medical Association,* March 31, 1962.

Richard P. Carson, B.S., and **Edward F. Domino, M.D.,** Ann Arbor, "Synergistic and Antagonistic Effects of Premedication on General Anesthetics in Mice," *Anesthesiology,* March-April, 1962.

M. H. Augstsson, M.D., B. M. Gasul, M.D., E. H. Fell, M.D., J. S. Graettinger, M.D., and **J. P. Bicoff, M.D.,** Chicago, and **D. F. Waterman, M.D.,** Grand Rapids, "Anomalous Origin of Left Coronary Artery from Pulmonary Artery," *Journal American Medical Association,* April 7, 1962.

Fred W. Whitehouse, M.D., Detroit, "Hypoglycemia and Diabetes," *Industrial Medicine and Surgery,* April, 1962.

George W. Morley, M.D., Ann Arbor, "Repeat Elective Cesarean Section," *Clinical Medicine,* April, 1962.

Theophile Raphael, M.D., and **L. G. Raphael, A.B.,** Ann Arbor, "Fingerprints in Schizophrenia," *Journal American Medical Association,* April 21, 1962.

MEDICAL CARE FOR THE AGED

Medical care for the aged: What is the fight all about?

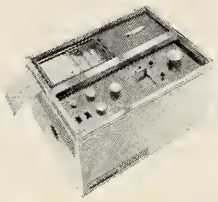
The issue that has all America talking is not whether the nation's 17,000,000 older citizens should have medical care. It is how they can pay for it.

President Kennedy has proposed that Social Security taxes be raised to provide hospital and nursing home care for those who are 65 years of age and older.

The American Medical Association insists that medical needs of the aged can be handled through private insurance, with the federal and state governments picking up the slack for the medically indigent under a program already in existence.—*New York Times* Service.

Every now and then go away, have a little relaxation, for when you come back to your work, your judgment will be surer, since to remain constantly at work will cause you to lose power of judgment. Go some distance away, because then the work appears smaller, and more of it can be taken in at a glance, and a lack of harmony or proportion is more readily seen.—LEONARDO DA VINCI.

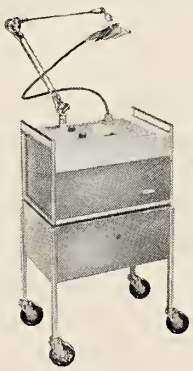
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IN MEMORIAM

EARL L. BURBIDGE, M.D., 55, Kalamazoo, medical director of the Upjohn Company since 1951, died April 7, 1962.

Doctor Burbidge joined Upjohn in 1947 as senior staff physician, becoming medical director in charge of clinical research in 1949 and moving up to his most recent post two years later.

Doctor Burbidge received his M.D. degree from Washington University in St. Louis in 1939. He was vice chairman of the Medical Section of the Pharmaceutical Manufacturers Association and a member of numerous professional organizations.

JOHN DEMARAY, M.D., 72, Detroit physician for 37 years, died April 8, 1962.

He was a graduate of McGill University College of Medicine in Montreal in 1923. He was a former staff member of Woman's Hospital and at the time of his death was on the staff of Mt. Carmel Mercy Hospital.

He was a Life Member of the Michigan State Medical Society.

THOMAS O. STEWART, M.D., 48, of Birmingham, died April 8, 1962.

A 1937 graduate of the Detroit College of Medicine, Doctor Stewart interned at Grace Hospital, Detroit. He was on the staffs of Mt. Carmel and Brent Hospitals.

Doctor Stewart was a member of Phi Rho Medical Fraternity, and of the Detroit Surgical Society and a Fellow of the International College of Surgeons.

ARTHUR VAN SOLKEMA, M.D., 59, Grandville physician since 1929, died April 18, 1962.

A graduate of Northwestern University Medical School, Doctor VanSolkema interned at Butterworth Hospital. He was in private practice in Grandville from 1929 to 1958, when he joined the staff of Pine Rest Christian Hospital as the first full-time general physician.

Digest Tapes Available

The California Medical Association's non-profit subsidiary, the Audio-Digest Foundation, has released to the medical profession a library of more than 250 one-hour tape recordings devoted to office problems.

Contents of many of the tapes represent live recordings from the annual meetings of the American Medical Association, American College of Physicians, American College of Obstetricians and Gynecologists, International Anesthesiologists, and scores of major university refresher and specialty courses.

The new catalog may be obtained by writing the Foundation at 619 South Westlake Avenue, Los Angeles 57, California.

Editorial Comment

Kennedy Medicare Bill Is Political Penicillin

Detroit Free Press, March 1, 1962

President Kennedy stuck the needle into Congress, and then twisted it a little, when he asked again for passage of his medical care for the aged program.

The bill has been languishing in the House Ways and Means Committee for a year, and Kennedy wants it out. His reasons are twofold, not entirely limited to concern for senior citizens.

He thinks first off that he has a good weapon here for the fall election campaign, and he hopes to jab the Republicans to death with it. Kennedy's House Speaker, Rep. John McCormack, made that plain by saying chances would improve if they could get a couple of Republican votes.

Lest the facts be lost in the politics, let it be remembered that the Ways and Means Committee has a democratic majority, and a majority can vote a bill out.

Secondly, the President is disenchanted with the way the states have taken to the present, voluntary medical care program, commonly known as the Kerr-Mills Bill.

This became law in October, 1960. It specifies that the Federal government will pay anywhere from 50 to 80 per cent of the cost of medicare programs established by the states, with the requirements and fees set by the states.

So far, only 25 states have seen any value in the program. Congress hoped to see $142 million spent on it the first year, and the bill only came to $77.4 million. Obviously we aren't spending enough.

One of the chief opponents of the Kerr-Mills Bill is Gov. Swainson, and his complaint is precisely that it isn't expensive enough. In a letter to Kennedy, Swainson called the program a failure because only 11,714 Michigan citizens, of an estimated 60,000 eligible, have been brought under the plan.

What the Governor ignores is the fact that not everyone is broke, and not everyone is sick. This state would be in really sad shape if everyone theoretically eligible used the plan each year.

Swainson, like Kennedy, also opposes a means test, a state requirement that people who get free hospital, doctor and nursing service show they have a need. Kennedy calls the means test unappealing. Swainson says he is dissatisfied with it.

Perhaps we are hopelessly out of date, but a means test seems a reasonable precaution. We see no reason

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why anyone able to pay his own medical costs should be casually granted the largesse of an impoverished state.

Between voluntary health insurance programs, private resources, welfare programs, the Kerr-Mills Bill and the longstanding practice in the medical profession to treat needy persons without charge, the health needs of the people of this country are being well taken care of.

There is no need for any compulsory Federal program which would cost the taxpayers more than $1 billion a year.

And in light of the fact that only half the states have bothered to take advantage of the current program, with the state setting the standards and the Federal government paying more than half the cost, there is even a good reason to question the value of what we already have.

* * *

Swainson Plays Politics, But Not Too Expertly

Battle Creek Enquirer and News, March 2, 1962

Gov. John B. Swainson plays the game of politics with great enthusiasm, but he can hardly be accused of being a smart politician. His denunciation of the Kerr-Mills medical care program for the aging is utterly ridiculous and patently indicates that he either doesn't know what he's talking about or that he is deliberately dispensing misleading information.

The governor's timing of his statement only calls for brief comment before passing on to the more important implications of what he said. If the Kerr-Mills program has been such a colossal failure during its year of operation in Michigan—as Gov. Swainson has charged—then why did not the governor have something to say about it earlier? The public may rest assured that the governor held his fire until he thought it would have the best effect politically. He released his criticism to coincide with President Kennedy's call for a socialized medical care plan that would supersede the Kerr-Mills law.

Gov. Swainson's stated reasons why the Kerr-Mills Act has failed deserve, however, extremely close scrutiny. He cites the fact that Michigan has more than 638,000 citizens past age 65 and said that it was estimated that at least 60,000 of these would be eligible for assistance in the first year of operation under the Kerr-Mills program. But, he argues that fewer than 12,000 of these 60,000 eligible senior citizens have applied for help. To the governor, such relatively light participation indicates failure of the program; to thinking citizenry, it might prove that the bulk of our aging population is still able to meet its own needs.

Under the Kerr-Mills Act, the federal government grants funds to the states on the basis of per capita income and the services each state decides to provide the aging. The states, themselves, fix the standards of eligibility and in the case of Michigan, the legislature decreed that single persons with an annual income of more than $1,500 and married couples with an income of more than $2,500 would be ineligible for Kerr-Mills assistance. This requirement has also been assailed by Gov. Swainson, who would like to either raise the eligibility figures or eliminate them entirely.

The fallacy of Gov. Swainson's statement is so clean cut and apparent that it betrays his real intention—to cater to the votes of the state's elderly population. Certainly if all of the 60,000 eligible senior citizens truly needed public assistance, many more than 12,000 would have requested it. And on the other hand, it is entirely possible that the 80 per cent who have not applied have not yet required medical care. If this be true, it would seem to discredit those who have contended that the aging present a more serious medical problem than do younger people.

Gov. Swainson obviously has tried to help the Kennedy medical care program. Instead, he has cast

Say you saw it in the Journal of the Michigan State Medical Society

grave doubt upon its merits by exposing figures that contradict its supporters, who contend that everyone past 65—regardless of personal economic circumstances—should have and must have federal medical care. The governor hasn't handled this matter adeptly at all, which might be a fortunate situation, at that.

The governor has simply proved—by using Michigan as an illustration—that neither the administration nor Congress really knows enough about the problem yet to advance any legislation beyond the Kerr-Mills Act.

Standing Out in the Mass Mess

Printers Ink, January 5, 1962

If there is any truth in the fact that the best communication is a two-person interplay, then it logically follows that we should adapt all the techniques and skills that we have developed in our most successful face-to-face relationships to the specific medium employed. You know them well, have practiced some as long as you've lived. Obviously, we should be friendly, pleasant, perhaps charming, interested in this other person and in his problems and in his dreams. We should be so alive that we attract other life to us. We should believe in what we are doing and saying and try to artfully arouse an interest in what we have to offer. We should be ourselves, involve ourselves, should project our own unique personalities.—JAMES H. CARGILL, *President*, Cargill, Wilson & Acree, Inc.

Letters to the Editor

The Editor will be glad to receive and consider for publication letters containing information of general interest to physicians throughout the State or presenting constructive criticisms on controversial issues of the day.

Dear Dr. Haughey:

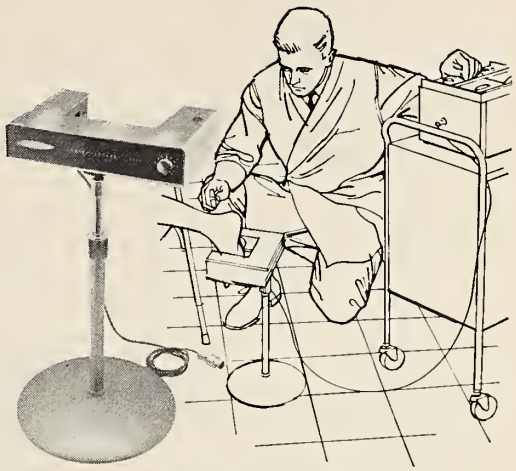
I have recently read the excellent group of articles on medical writing which appeared in THE JOURNAL MSMS of February 1961. I would like to have a copy of this group of articles for my own files.

Is there any possibility that they are available in booklet form? If this is not the case, could I obtain the February 1961 issue of THE JOURNAL MSMS?

I shall appreciate any information that you can give me.

Yours truly,
C. H. KALB, M.D.

Milwaukee, Wisconsin
April 18, 1962



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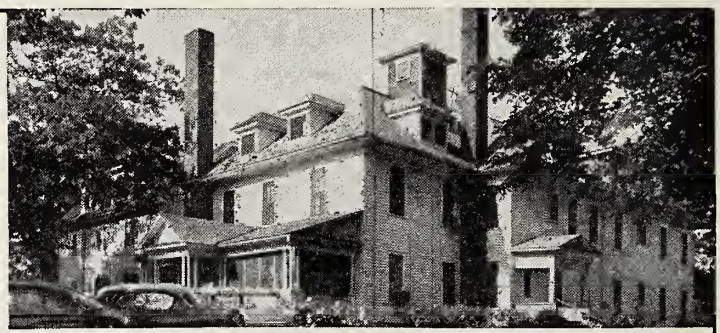
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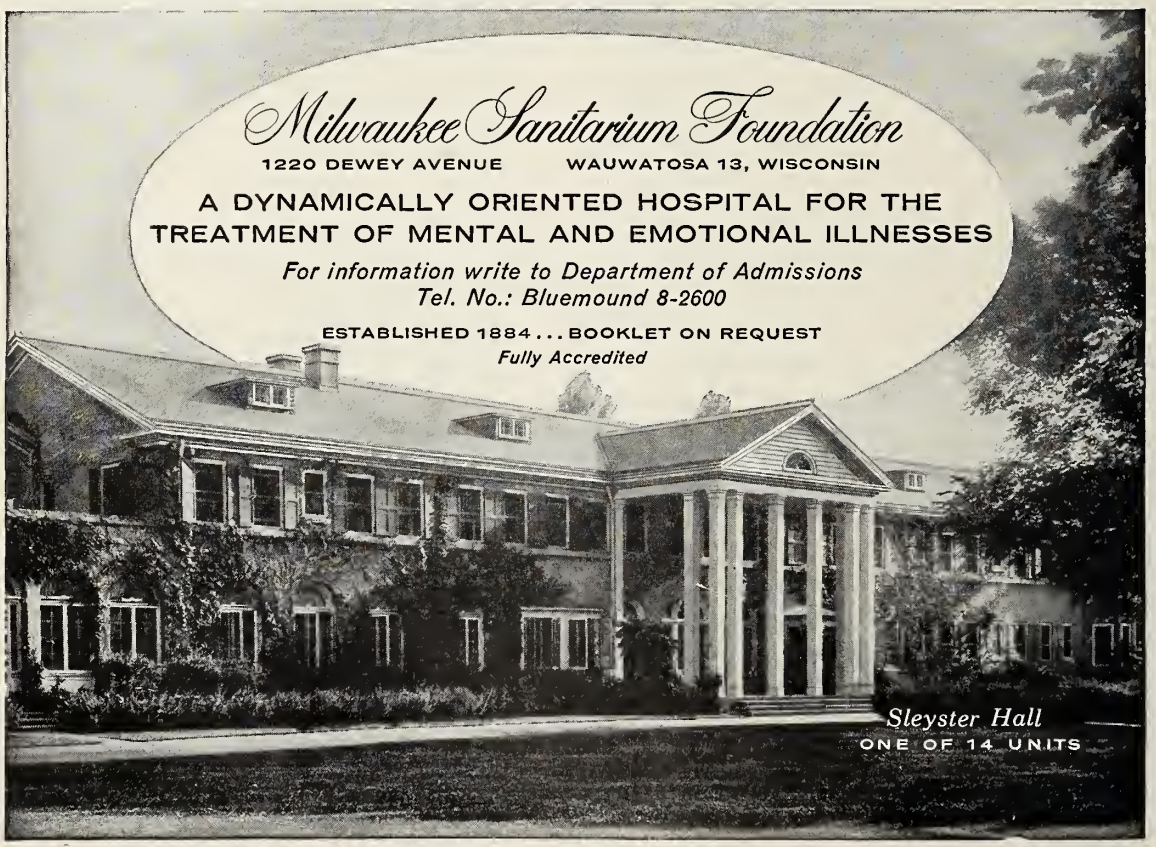
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*Gamble, C. J.: Am. Pract. & Digest Treat. *11*:852 (Oct.) 1960. See also Berberian, D. A., and Slighter, R. G.: J.A.M.A. *168*:2257 (Dec. 27) 1958; Olson, H. J.; Wolf, L.; Behne, D.; Ungerleider, J., and Tyler, E. T.: California Med. *94*:292 (May) 1961; Kaufman, S.A.: Obst. & Gynec. *15*:401 (Mar.) 1960; Warner, M.P.:J.Am. M. Women's A. *14*:412 (May) 1959.

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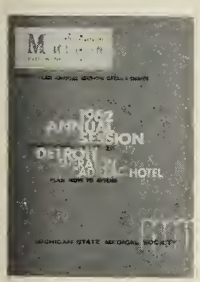
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THE COVER

The type design on the cover invites every MSMS member to attend the Annual Session, and to read this number for details about the program.

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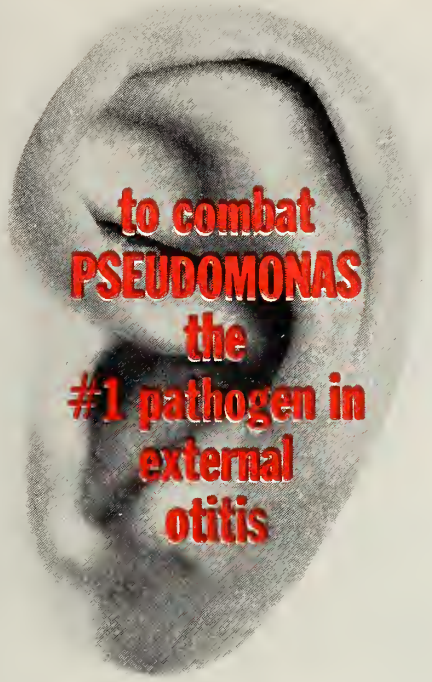
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Delegates

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G. W. Slagle, M.D., Battle Creek	1962
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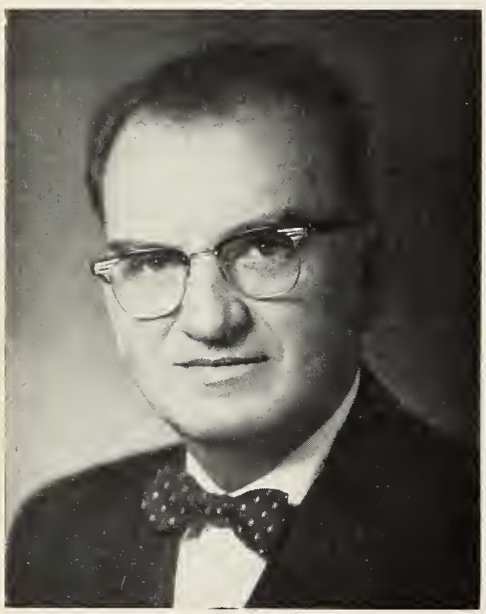
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President's Page

ANNUAL SESSION ATTENDANCE URGED



President
Michigan State Medical Society

The importance of a strong State Medical Society has been demonstrated in the national scrap about social security and medical care. State legislation has been almost equally critical. New research, teaching, and practice issues seem to crop up daily at all levels of government. This medical-political turmoil has been more than matched by the rapid developments in the scientific areas.

Why not kill two birds with one stone at the Annual Meeting this fall?

Come to Detroit in time to observe and participate in the business session of the House of Delegates and stay for the superb scientific sessions which follow. The dates of the House of Delegates meetings are September 23-24-25 and for the scientific sessions, September 26-27-28.

All members of MSMS are welcome to attend the general sessions of the House of Delegates as well as the meetings of reference committees of the House of Delegates. While the privileges of the floor are reserved for delegates and certain officers at general sessions, all members are invited to contribute their thinking regarding the important issues discussed at the committee meetings of the House.

An informed, alert membership is the keystone of a flourishing Society in the area of public relations as well as medical science.

In addition to this opportunity to understand your State Society better, the Annual Session provides an opportunity to hear and meet nationally recognized medical educators who can help doctors to make contributions daily to their patients and community.

The Annual Session activities—including the House of Delegates businessmeeting, exhibits, assemblies, section meetings, ancillary groups, et al—help inspire the doctor so he can continue to serve his patients efficiently, with enthusiasm, and vigor.

MSMS committees are working hard now to perfect the best possible program and the MSMS staff is conscientiously seeking to develop the smoothest possible machinery.

Come for the whole show, if you can. Mark your calendar today—September 23-24-25 for business; September 26-27-28 for science.

Hear Medical Authorities At MSMS Annual Session

The 1962 Annual Session offers Michigan State Medical Society members many outstanding medical authorities on a wide range of subjects. The 97th Annual Session will be held at the Sheraton-Cadillac Hotel in Detroit.



General Information

DATES —House of Delegates: Sunday, Monday, Tuesday, September 23, 24, 25, 1962

Scientific Session: Wednesday, Thursday, Friday, September 26, 27, 28, 1962

HEADQUARTERS —Sheraton-Cadillac Hotel, Detroit

REGISTRATION —Fourth Floor, Sheraton-Cadillac Hotel
NO REGISTRATION FEE FOR MEMBERS OF MSMS AND OTHER STATE MEDICAL ASSOCIATIONS, AMA, AND CANADIAN MEDICAL ASSOCIATION. Please have your membership card ready.

House of Delegates: beginning at 6:00 p.m. on Sunday and continuing on Monday and Tuesday

Scientific Session: beginning at 8:00 a.m. on Tuesday and from 8:00 a.m. to 5:00 p.m. on Wednesday and Thursday, and from 8:00 a.m. to 1:00 p.m. on Friday.

EXHIBITS —Fourth Floor, Sheraton-Cadillac Hotel

NEWS ROOM —Michigan Room, Fifth Floor, Sheraton-Cadillac Hotel

You Are Invited To Annual Dinner Dance



Biddle Lecturer

Once again, the "State Society Dinner Dance" will be the MSMS social highlight at Detroit, Thursday, September 27, in the Grand Ballroom of the Sheraton-Cadillac Hotel. The ticket will entitle you to the cocktail hour, a delicious dinner, dancing, a witty talk by the Andrew P. Biddle Lecturer, John S. DeTar, M.D., of Milan on "The Patient's Dilemma," and a stellar stage show—all for only $7.00 each!

You'll enjoy fun . . . entertainment . . . and fellowship.

Scientific Assembly Program for 1962 Annual Session

Wednesday, Thursday, Friday—September 26, 27, 28

Grand Ballroom, Sheraton-Cadillac Hotel, Detroit

9 A.M. to 5 P.M.

Wednesday Morning, September 26

General Practice	"Healthy Aging" *Edward L. Bortz, M.D.*, Philadelphia, Pennsylvania
Internal Medicine	"The Changing Concept of Rheumatoid Disease and its Management" *Richard H. Freyberg, M.D.*, New York, New York
Internal Medicine	"Jaundice: Newer Developments" *Leon Schiff, M.D.*, Cincinnati, Ohio
Internal Medicine	"Carbohydrate Metabolism" *Rachmiel Levine, M.D.*, New York, New York
Public Health & Preventive Medicine	"Medical Science and World Affairs" *Henry van Zile Hyde, M.D.*, Evanston, Illinois

Wednesday Afternoon, September 26

Obstetrics-Gynecology	"Gross Pathology, Diagnosis and Clinical Management of Ovarian Enlargements" *John C. Ullery, M.D.*, Columbus, Ohio
Obstetrics-Gynecology	"The Management of Problems in Gynecologic Endocrinology" *Herbert S. Kupperman, M.D.*, New York, New York
Obstetrics-Gynecology	"Risks in the Conduct of Labor" *Clyde L. Randall, M.D.*, Buffalo, New York
Urology	"Uropsychiatry: The Recognition of Functional Urologic Complaints" *Wm. J. Engel, M.D.*, Cleveland, Ohio

Thursday Morning, September 27

Ophthalmology	"Ophthalmoscopic Sleuthing" *John McLean, M.D.*, New York, New York
Otolaryngology	"Problems in Diagnosis of Broncho Genic Carcinoma" *Charles M. Norris, M.D.*, Philadelphia, Pennsylvania
Radiology	"The Scope and Interpretation of Voiding Cystourethrography" *Harry Z. Mellins, M.D.*, Brooklyn, New York
Gastro.-Proct. Beaumont, Lecture	"Cytologic Diagnosis of the Gatsrointestinal Diseases" *Lloyd L. Brandborg, M.D.*, San Francisco, California
Anesthesiology	"Electro-analgesia" *Perry P. Volpitto, M.D.*, Augusta, Georgia

Thursday Afternoon, September 27

Surgery & Occupational Health	Panel on "Use and Abuse of Antibiotics" *Alfred H. Whittaker, M.D.*, Detroit, Michigan *Jere W. Lord, Jr., M.D.*, New York, New York *Raymond E. Barzilai, M.D.*, Washington, D. C.
Surgery	"Is the Surgical Treatment of Hypertension Obsolete?" *Geza de Takats, M.D.*, Chicago, Illinois
Surgery	"The Fall and Rise of Lumbar Sympathectomy" *Jere W. Lord, Jr., M.D.*, New York, New York

Friday Morning, September 28

Dermatology-Syphilology	"A Group of Diseases Having Dermatologic Genetic, Medical Ophthalmic, Orthopedic and Roentgen Changes: The Fibroblastic Dysplasias" *Sture A. M. Johnson, M.D.*, Madison, Wisconsin
Dermatology-Syphilology	"Topical Steroids for Control of Cutaneous Disease" *Richard B. Stoughton, M.D.*, Cleveland, Ohio
Nervous & Mental Diseases	"Psychiatric Principles for the Non-psychiatric Physician" *Hugh T. Carmichael, M.D.*, Chicago, Illinois
Pediatrics	Panel on "Surgical and Medical Emergencies in the Newborn" *Paul V. Woolley, Jr., M.D.*, Detroit, Michigan *James L. Wilson, M.D.*, Ann Arbor, Michigan *Robert E. Gross, M.D.*, Boston, Massachusetts
Pathology	"Tumors Following Radiation" *Wm. A. Meissner, M.D.*, Boston, Massachusetts

Luncheons-Dinners-Meetings of MSMS Sections Ancillary, and other Related Groups During 97th Annual Session

Wednesday, September 26

MSMS SECTION ON DERMATOLOGY AND SYPHILOLOGY, 12:00 noon luncheon-meeting in the Washington Room of the Sheraton-Cadillac Hotel, Detroit. Speaker is *Wm. B. Taylor, M.D.*, Ann Arbor who will talk on "Chemosurgical Treatment of Carcinoma of the Skin."

MSMS SECTION ON OBSTETRICS-GYNECOLOGY AND THE MICHIGAN SOCIETY OF OBSTETRICS-GYNECOLOGY, 12:00 noon luncheon-meeting in the English Room of the Sheraton-Cadillac Hotel, Detroit. Panel presentation on "The Diagnosis and Treatment of Uterine Bleeding in Early Pregnancy" by *Harold C. Mack, M.D.*, Detroit; *Herbert S. Kupperman, M.D.*, New York City; *Clyde L. Randall, M.D.*, Buffalo, New York; and *John C. Ullery, M.D.*, Columbus, Ohio.

MSMS SECTION ON PUBLIC HEALTH AND PREVENTIVE MEDICINE, 12:30 p.m. luncheon-meeting in the Sheraton Room of the Sheraton-Cadillac Hotel, Detroit. Speaker is *Henry van Zile Hyde, M.D.*, of Evanston, Illinois, who will discuss "Shifting Emphasis in International Health."

MICHIGAN COMMITTEE ON TRAUMA, AMERICAN COLLEGE OF SURGEONS, 12:00 noon luncheon-meeting in the East and West Rooms of the Sheraton-Cadillac Hotel, Detroit.

CLINICAL SOCIETY, MICHIGAN DIABETES ASSOCIATION, 2:00 to 5:00 p.m. meeting in the English Room, followed by 6:30 p.m. reception, 7:30 p.m. dinner, in the East and West Rooms, Sheraton-Cadillac Hotel, Detroit.

PROGRAM

Subject: Complications of Diabetes Mellitus
Walter L. Anderson, M.D., of Detroit, Presiding

2:00 p.m. "Day-to-Day Problems of the Diabetic," *W. E. Redfern, M.D.*, Detroit
2:30 p.m. "OB and Surgical Problems of Diabetes," *K. K. Vining, Jr., M.D.*, Grand Rapids
3:00 p.m. "Diabetic Retinopathy," *J. M. B. Bloodworth, M.D.*, Columbus
3:30 p.m. "Diabetic Nephropathy," *Victor Pollak, M.D.*, Chicago
4:00-4:15 p.m. Intermission
4:15 p.m. "Can Diabetic Management Alter Complications?"
Panel: *Doctors Vining* (moderator), *Redfern, Bloodworth*, and *Pollak*.

* * *

6:30 p.m. Preprandial (East-West Rooms)
7:30 p.m. Dinner Meeting, Walter L. Anderson, M.D., Presiding
Speaker: *Allan Hennes*, M.D., Detroit
"Lipid Disturbances in Diabetes"

MSMS SECTION ON GENERAL PRACTICE, 5:00 p.m. meeting in the Washington Room, Sheraton-Cadillac Hotel, Detroit. Speaker is *Edward L. Bortz, M.D.*, Philadelphia, Pennsylvania.

MSMS SECTION ON INTERNAL MEDICINE AND MICHIGAN SOCIETY OF INTERNAL MEDICINE, 5:30 p.m. reception in the Sheraton Room followed by a meeting in the Washington Room, Sheraton-Cadillac Hotel, Detroit. (Speaker to be announced.)

MSMS SECTION ON UROLOGY AND THE DETROIT BRANCH, AMERICAN UROLOGICAL ASSOCIATION, INC., 5:30 p.m. reception, 6:30 p.m. dinner, 7:45 p.m. meeting in the English Room of the Sheraton-Cadillac Hotel, Detroit. *Wm. J. Engel, M.D.*, Cleveland, Ohio, will speak on "A Medley of Instructive Urologic Experiences."

MICHIGAN ORTHOPAEDIC SOCIETY, 6:30 p.m. reception-dinner-meeting in the Boulevard Room of the Sheraton-Cadillac Hotel, Detroit.

Thursday, September 27

MSMS SECTION ON GASTROENTEROLOGY-PROCTOLOGY, 12:30 p.m. luncheon-meeting in the Sheraton Room, Sheraton-Cadillac Hotel, Detroit. Speaker is *Lloyd L. Brandborg, M.D.*, of San Francisco who will talk on "Studies of the Large Bowel."

BOARD OF DIRECTORS, MICHIGAN ACADEMY OF GENERAL PRACTICE, 12:00 noon luncheon-meeting in the Mason Room, Sheraton-Cadillac Hotel, Detroit.

MSMS SECTION ON OCCUPATIONAL MEDICINE, 5:00 to 7:00 p.m. reception and meeting in the East and West Rooms, Sheraton-Cadillac Hotel, Detroit. Speaker is *Raymond E. Brazilai, M.D.*, Washington, D. C., who will present "The Food and Drug Administration, Generalities and Medical Activities."

MSMS SECTION ON OTOLARYNGOLOGY, 5:30 p.m. reception-dinner-meeting in the Boulevard Room of the Sheraton-Cadillac Hotel, Detroit. *Charles M. Norris, M.D.*, of Philadelphia is the speaker and he will present "Current Concepts in Treatment of Laryngeal Cancer."

MSMS SECTION ON RADIOLOGY AND THE DETROIT ROENTGEN RAY AND RADIUM SOCIETY, 6:15 to 7:15 p.m. reception and dinner-meeting in the Book-Casino, Sheraton-Cadillac Hotel, Detroit. *Harry Z Mellins, M.D.*, Brooklyn, New York, speaker, will present "The Radiological Sign of Disease in the Lesser Peritoneal Sac."

MSMS SECTION ON NERVOUS AND MENTAL DISEASES AND THE MICHIGAN SOCIETY OF NEUROLOGY AND PSYCHIATRY, THE MICHIGAN DISTRICT

BRANCH OF THE AMERICAN PSYCHIATRIC ASSOCIATION, 5:00 p.m. reception-dinner-meeting in the English Room, Sheraton-Cadillac Hotel, Detroit. *Hugh T. Carmichael, M.D.*, of Chicago will talk on "The Effect of Placebos."

MSMS SECTION ON OPHTHALMOLOGY, will meet at the Detroit Athletic Club, 241 Madison, 5:30 p.m. reception in Rooms 1-2-3 followed by meeting in the Georgian Room. *John McLean, M.D.*, of New York City will speak on "Studies in Glaucoma."

MSMS SECTION ON SURGERY, 5:30 p.m. reception in the Washington Room followed by a dinner-meeting in the Sheraton Room of the Sheraton-Cadillac Hotel, Detroit. *Alan P. Thal, M.D.*, of Detroit will moderate a discussion on "Vascular Lesions of the Upper Extremities." *Geza de Takats, M.D.*, Chicago, will present "Raynaud's Disease," *Jere W. Lord, Jr., M.D.*, of New York City will discuss "Shoulder-Girdle Syndromes," and Alfred H. Whittaker, M.D., of Detroit will present "Vascular Injuries of Industrial Significance."

MSMS SECTION ON ANESTHESIOLOGY AND THE MICHIGAN SOCIETY OF ANESTHESIOLOGISTS, INC., 2:30 to 4:00 p.m. meeting in the English Room of the Sheraton-Cadillac Hotel, Detroit. *Perry P. Volpitto, M.D.*, of Augusta, Georgia, will discuss "Review of Fluorinated Agents."

STATE SOCIETY DINNER DANCE, 7:00 p.m. reception with dinner at 8:00 p.m. in the Grand Ballroom of the Sheraton-Cadillac Hotel, Detroit. Speaker is *John S. DeTar, M.D.*, of Milan, who will talk on "The Patient's Dilemma." There will also be a one-hour floor show.

MICHIGAN ACADEMY OF PHYSICAL MEDICINE AND REHABILITATION, 6:00 p.m. reception-dinner-meeting in Rooms 1507-1508 of the Sheraton-Cadillac Hotel, Detroit. Speaker for the evening will be C. *Wesley Mitchell, M.D.*, Chief of the Division of Orthopedic Surgery, Henry Ford Hospital, Detroit, Michigan, who will talk about the "Surgical Treatment of Hip Disorders."

Friday, September 28

MSMS SECTION ON PATHOLOGY AND MICHIGAN PATHOLOGICAL SOCIETY, a one-day meeting in the English Room of the Sheraton-Cadillac Hotel, Detroit, beginning with a business meeting from 10:00 a.m. to 12:00 noon, followed by luncheon at 1:15 p.m. and a three-hour seminar on "Lesions of the Gastro-Intestinal Tract" conducted by *Wm. A. Meissner, M.D.*, of Boston.

MSMS SECTION ON PEDIATRICS, 6:30 p.m. reception-dinner-meeting in the Wayne County Medical Society Headquarters in Detroit. Speaker is *Mylon E. Wegman, M.D.*, of Ann Arbor.

MICHIGAN ACADEMY OF PLASTIC SURGERY, 2:00 to 4:30 p.m., scientific program in the Sheraton Room of the Sheraton-Cadillac Hotel, Detroit.

PROGRAM

Symposium on the Diagnosis and Management of Facial Injuries

Moderator: *Ralph Blocksma, M.D.*, Grand Rapids

"Soft Tissue Injuries of the Face"—*William A. Lange, M.D.*, Detroit

"Malar-Zygomatic Arch Fractures"—*Reed O. Dingman, M.D.*, Ann Arbor

"Fractures of the Mandible"—*Andrew E. Stefani, Jr., M.D.*, Detroit

"Nasal and Maxilla Fractures"—*Robert Pool, Jr., M.D.*, Birmingham

"Examination of the Injured Hand"—*William C. Grabb, M.D.*, Ann Arbor

"Management of the Cleft Lip"—*Wallace H. Steffensen, M.D.*, Grand Rapids

"Management of the Cleft Palate"—*John H. Packer, M.D.*, Lansing

"Treatment of Tumors of the Head and Neck in Children"—*Alexander P. Kelly, Jr., M.D.*, Detroit

6:00 p.m. Cocktails, followed by dinner at 6:30 p.m. in the East and West Rooms of the Sheraton-Cadillac Hotel.

* * *

WOMAN'S AUXILIARY TO THE MICHIGAN STATE MEDICAL SOCIETY will meet at the Pick Fort Shelby Hotel in Detroit on Tuesday, Wednesday and Thursday, September 25, 26 and 27.

Tuesday, September 25

1:00 p.m. Art Exhibit opens—Shelby Room—2nd floor
For doctors and wives. (Bring your paintings.)

1:30 p.m. Planning Conference for all State Officers, Chairmen and District Directors.
Mrs. Ross Taylor, Presiding—Lafayette Room

3:30 p.m. Punch Party—Lafayette Room—2nd floor

Wednesday, September 26

9:00 a.m Formal Opening of Convention—Crystal Ballroom
Mrs. Clarence I. Owen, Presiding

1:00 p.m. Luncheon—Coral Room—Lower Level
Honoring the National Representative, Past State Presidents and Advisory Committee

Thursday, September 27

8:00 p.m. Memorial Breakfast—Shelby Room
Mrs. Russell Costello

9:00 a.m. Second Session of Convention
County President's Reports
Election of Officers

1:00 p.m. Luncheon—Coral Room—Lower Level "Queen for a Day"
Honoring County Presidents
Installation of New Officers

* * *

THE MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY will meet on Thursday, September 27 at the Statler-Hilton Hotel in Detroit.

1:00 p.m. Business Meeting—Michigan Room
Miss Cecile Rutan, President

6:00 p.m. Social Hour—Wayne Room

7:00 p.m. Annual Banquet—Ballroom
Presentation of "Medical Assistant of the Year" Award
Installation of Officers
Speaker: Carl S. Winters, D.D., Oak Park, Ill.
"The Crimson Parade of Crime"

(See additional items on page 885)



Rep. Lucille McCollough

Working Towards Controls Of Cancer Quackery

Progress has been made in this session of the State Legislature toward the eventual adoption of a law to place positive controls on cancer quackery, through a proposal introduced by State Representative Mrs. Lucille McCollough (D), Dearborn.

The McCollough bill was considered by the House Committee on Public Health and general agreement was reached as to the excellence of the purpose of such legislation.

Quackery, particularly as regards cancer, was spotlighted during the October 1961 First National Congress on Quackery held in Washington, D. C. At that meeting, support was evidenced for proper legislation to provide for investigation, careful study and development of evidence, public trials and vigorous law enforcement insofar as "quacks" are concerned.

The McCollough proposal was developed after study of similar legislation adopted in some States and under active consideration by the Legislatures of several others.

Mrs. McCollough, who is now completing her fourth term in the State House of Representatives, has long demonstrated her interest in legislation designed to protect the public health. HB 431, as introduced by her, would ". . . promote the effective cure of persons suffering from cancer (and) establish a Cancer Advisory Council within the Michigan State Health Department . . ."

The suggested Cancer Advisory Council would have responsibility for disseminating information on both cancer and cancer quackery. It would also have authority to investigate the spurious claims, techniques, treatments and alleged "cures" of those not permitted by Michigan law to treat cancer.

The State Medical Society has officially commended Mrs. McCollough for introducing the cancer quackery bill; MSMS has indicated its desire to work closely with Rep. McCollough in analyzing and making any necessary amendments to this bill prior to its reintroduction in the 1963 legislative session.

Youth Fitness Kits Sent To Michigan School Officials

The MSMS Child Welfare Committee, in cooperation with the Michigan Department of Public Instruction, helped prepare and send Youth Fitness Kits to all county medical society Youth Fitness and Child Welfare Committee personnel, members of the MSMS Child Welfare Committee and to nearly 2,000 school superintendents.

The MSMS Subcommittee on School Health has requested time during the annual County Secretaries-Public Relations Workshop to present proposals concerning implementation of the Youth Fitness Program.

Gift to MSMS Historical Collections

"The Past, Present and Future of the Michigan State Medical Society" is the title of the Presidential Address given by the late Reuben Peterson, M.D., of Ann Arbor at the 50th Annual Meeting of Michigan State Medical Society in Grand Rapids, September 1, 1915.

Many paragraphs of Doctor Peterson's address, made 47 years ago, apply equally well today to problems facing the profession of this state.

Reprint of Doctor Peterson's address was presented to MSMS by Mrs. Fred J. Drolett of Lansing, wife of Michigan's Foremost Family Physician for the year 1958 and daughter of Charles J. Lundy, M.D., who was elected MSMS President in 1892 but died previous to taking office.

HIGHLIGHTS of The Council

Meeting of May 16, 1962

In May, sixty-four items were presented to The Council at its meeting in East Lansing. Chief in importance were:

- Policy re use of oral polio vaccine, as adopted by The Council, is as follows:

  "The Council of MSMS strongly urges all citizens of Michigan to properly protect themselves against communicable diseases by means of adequate immunization. This should include protection against smallpox, diphtheria, whooping cough, tetanus, polio, and, in certain areas, against typhoid fever. Particular emphasis should be directed toward immunizing of infants and children as well as unprotected adults.

  "Recently Types I, II and III live polio virus vaccines in oral form have been released for commercial distribution. These vaccines should be administered in single separate doses at six-week intervals and would best be used as a community-wide immunization program in an unprotected area where all citizens would receive doses simultaneously, rather than giving the oral vaccine haphazardly to scattered, isolated individuals."

- Progress re final report of Governor's Commission on Prepaid Hospital and Medical Care Plans: Harold F. Falls, M.D., of Ann Arbor, Advisor to the Governor's Commission, reported that it is meeting with its consultants each Saturday and developing a final report.

- Report on MSMS building was presented by Advisor K. H. Johnson, M.D., of Lansing.

- Progress report on Michigan Medical Service was presented by Mr. L. Gordon Goodrich and Mr. William Flaherty of Blue Shield.

- Financial report and bills payable were presented, given minute study, and approved. The budget for Historian William J. Stapleton, Jr., M.D., of Detroit was approved.

- Committee Reports. The following reports were presented and given consideration by The Council.

  (a) Committee on Professional Insurance Plans, meeting of March 8, outlined results of conference with representatives of Blue Shield re design of a Master Medical Plan for MSMS members.

  (b) Liaison Committee with Michigan State Nurses Association, March 21, reported some areas of discussion for future meetings, and the relationship of this Committee to the Permanent Conference Committee.

  (c) Tuberculosis Control Committee, March 21, defined role of private practitioner in tuberculosis control, report from Michigan Tuberculosis Association re a proposed tuberculin testing week, and demonstration testing programs for nurses and others. The Council requested that the technique of TB testing be reviewed by appropriate authorities because of the importance of proper sterilization when the multiple injection technique by single needle is employed.

  (d) Child Welfare Committee, April 11, reviewed youth fitness program, the "Students' Medical Evaluation with Physician Recommendations" form with minor changes, and use of both types of polio vaccine.

  (e) Mental Health Committee, April 12, reported Committee cooperation with Detroit radio station WDTM-FM in providing mental health information to the public, the forthcoming AMA Congress on Psychiatry, and legislative proposal for compulsory testing of infants for PKU. The Council re-referred the last item (testing for PKU) to the Committee in light of new information regarding legislation thereon.

  (f) Committee on Disaster Medical Care, April 18, reviewed progress in implementation of Michigan Medical Self-Help Program in cooperation with Michigan Office of Civil Defense, reviewed plans for the April 25-26 Health Service in Emergencies conference, reviewed training manual for civil defense emergency hospitals, and discussed regional civil defense planning.

  (g) Committee on Study of Prevention of Highway Accidents, April 26, reported on status of medical advisory committees in component societies throughout the state, outlined state legislation re traffic safety, reviewed compulsory reporting of epilepsy as it pertains to driver licensing, and recommended that copies of an AMA publication be distributed to all MSMS members. The Council approved the minutes but requested the Committee to determine cost of distributing the booklet prior to placing order for same.

  (h) Committee on Rehabilitation, May 2, reviewed activities of the Vocational Rehabilitation Committee of previous years, outlined reports of individual members re extent and use of present rehabilitation facilities in local areas, developed an outline of the purposes of this Committee, and discussed rehabilitation problems in local areas.

(i) Ad Hoc Committee to study MSMS Headquarters Organization, May 15, gave progress report on its study which will be completed for presentation to The Council in July.

(j) Committee on State Fair, April 25, reported plans for its September exhibit.

- Report of the Michigan Delegates to the AMA was presented by Chairman Wm. A. Hyland, M.D., including review of recent MSMS Social Security Poll, support of George W. Slagle, M.D., for membership on the AMA Council on Medical Service, and support of Wm. A. Hyland, M.D., for the position of AMA President-Elect.

- The report of President Otto K. Engelke, M.D., of Ann Arbor, included review of status of House Bill No. 100 in the Michigan Legislature (hospital licensing bill); the Council reaffirmed its stand for the bill as originally introduced with the addition of the three amendments offered by MSMS; if the present bill does not pass, the Legal Affairs Committee was instructed to contact Michigan Hospital Association in efforts to develop a bill acceptable to all parties for introduction at next session of the Legislature.

- The report of Vice-Chairman O. J. Johnson, M.D., of Bay City, included commendation from Adult Education Association on services of MSMS staff member Herbert A. Auer at recent AEA Annual Conference; also approval of dates for the six Council meetings scheduled in 1963.

- President-Elect C. I. Owen, M.D., of Detroit, announced nationwide study of voluntary hospitals being made by U of M Survey Research Center; on his attendance at annual meeting of Medical Society of the State of Wisconsin, and progress report on Michigan contributions to AMAE & RF.

- Secretary D. Bruce Wiley, M.D., of Utica, reported on two invitations from Michigan Hospital Association, one inviting The Council to send a representative to its Annual Session of June 18-19 (Council Chairman McGillicuddy was authorized to attend) and second, suggesting a summit meeting of the Board of Directors of MHA and The Council of MSMS; the request of Milton M. Green, M.D., to maintain membership in Wayne County Medical Society, though he will reside in Oakland County on his return from military service—which request was granted by The Council.

- Legal Counsel Lester P. Dodd, LL.B., of Detroit, presented a capsule report warning of risks involved when doctors sign Blue Shield service reports without having actually rendered or directly supervised the service; opinion that substantial changes in the law will be required to permit sentencing of a multiple offender in drunken driving cases to a hospital for therapy; reaffirmation of opinions with respect to release of confidential information by doctors and hospitals; opinion on the meaning of the phrase "genuine collaboration with a qualified physician" in connection with possible use of this phrase in a psychologist licensing law; opinion re paid advertisements in newspapers by a component society which set forth its views on proposed legislation in the field of medical care for the aged; opinion that legislation requiring mandatory reporting by doctors to governmental agencies of conditions found in a patient which might affect his ability to drive would not be in the best interests of the profession; opinion that a component society could not, consistent with MSMS Bylaws, permit physicians not licensed in Michigan to vote and hold office in the county society although such persons could be made eligible for a type of associate membership; opinion that Michigan law does not require a specific pronouncement or declaration that a person is dead other than through the signing of a death certificate required of the attending physician; furnishing to a branch of the Chicago Medical Society copy of Michigan's statute prohibiting splitting of fees by physicians or surgeons; and the review in detail to a component society of the provisions of the Michigan County Medical Examiners Act.

  The Council authorized Legal Counsel to contact the Advisory Committee to the Executive Director for advice on opinions which involve MSMS policy.

- Executive Director Wm. J. Burns reported on MSMS campaign favoring Kerr-Mills program; plans for the MSMS Annual Session at the Sheraton-Cadillac Hotel, Detroit, September 26, 27, 28; reporting that Committee purposes, not specifically spelled out in the Bylaws, have been delineated for 43 committees, and will be presented, after approval by individual committees or chairmen, to The Council in July; on numerous mailings sent out by MSMS during the past month; on the program of the semi-annual workshop of Executive Secretaries of Component Societies to be held May 23; and attendance at meetings by staff.

- Public Relations Counsel's report by Hugh W. Brenneman included review of Michigan legislation, report on King-Anderson (HR 4222), and report on Michigan Association of Professions.

- Wm. Bromme, M.D., Detroit, as Chairman of Liaison Committee with Michigan Veterans Organizations, suggested that his Liaison Committee be discontinued in September, 1962 and be replaced by a Committee on Veterans Affairs; he gave preliminary workup being done by the Ad Hoc Com-

mittee on Veterans Home Town Medical Care.

- Committee Appointments. (a) To the Ad Hoc Committee on Veterans Home Town Care Program: Wm. Bromme, M.D., Detroit, Chairman, B. M. Harris, M.D., Ypsilanti, J. R. Heidenreich, M.D., Daggett, and George W. Slagle, M.D., Battle Creek. (b) To MSMS Liaison Committee with Osteopathic Association: John J. Coury, M.D., Port Huron, Chairman, D. W. McLean, M.D., Detroit, C. I. Owen, M.D., Detroit, John G. Slevin, M.D., Detroit. (c) Ad Hoc Committee re MSMS Policy on Oral Polio Vaccine: R. J. Mason, M.D., Chairman, Birmingham, E. E. Martmer, M.D., Grosse Pointe, W. J. Zimmerman, M.D., Birmingham, and F. D. Richards, M.D., Lansing.

County Secretaries Chairman

Harold Kessler, M.D., Alpena, secretary for many years of the Alpena-Alcona-Presque-Isle County Medical Society, is chairman of the County Secretaries group for 1962-63. One of his major functions will be to serve as co-chairman for the 1963 MSMS County Secretaries-Public Relations Seminar, and will have a share in formulating the program for the event. Doctor Kessler succeeds H. Clay Tellman, M.D., Muskegon, as chairman.



HAROLD KESSLER, M.D.

Journal Article Recognized

A digest of a recent MSMS JOURNAL article by W. M. Mikkelsen and others, Veterans Administration Hospital, Ann Arbor, appeared in a recent issue of "Labquick," publication of the Ames Company.

The digest of "Serologic Tests for Rheumatoid Arthritis" was the lead story in the "Labquick" issue, Volume 2, Number 3.

Welcome, New Members!

The following new members are enthusiastically welcomed into the Michigan State Medical Society. In some cases, the specialties for the doctors were not given and thus cannot be reported below:

John G. Albright, M.D.
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Laurium, Michigan

Robert E. Allen, Jr., M.D.
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Lansing, Michigan

George K. Arnold, M.D.
V. A. Hospital
Ft. Custer, Michigan

Edwin A. Balcer, M.D.
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Holland, Michigan

John V. Balian, M.D.
Henry Ford Hospital
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Thomas R. Berglund, M.D.
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Kalamazoo, Michigan

Manuel A. Bouza, M.D.
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Detroit 7, Michigan

Rowan C. Boylan, M.D.
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Lansing, Michigan
(Anatomical and Clinical Pathology)

Dane Breedlove, M.D.
Durand, Michigan

Garland R. Brown, M.D.
University Medical Center
Ann Arbor, Michigan
(Roentgenology and Radiology)

Robert A. Buchanan, M.D.
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Ann Arbor, Michigan
(Pediatrics)

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University Medical Center
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James K. Chamness, M.D.
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Seong H. Chi, M.D.
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Grace Hospital
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(General Practice)

Andrew L. Denson, M.D.
E. W. Sparrow Hospital
Lansing, Michigan

(Continued on Page 826)



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(Continued from Page 824)

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Constitutional Convention Lauds Medical Profession

The Constitutional Convention, before it adjourned, adopted Resolution No. 62 "offered by Con-Con President Stephen H. Nisbet on behalf of the entire membership of the Convention."

The resolution stated:

"A RESOLUTION OF THANKS AND APPRECIATION OF SERVICES PROVIDED BY THE MICHIGAN STATE MEDICAL SOCIETY AND THE INGHAM COUNTY MEDICAL SOCIETY.

"WHEREAS, The Michigan State Medical Society and the Ingham County Medical Society have provided for the use of the Convention Delegates, a first aid facility staffed by a registered nurse, located in the Civic Center; and

"WHEREAS, A number of Doctors of Medicine and general practitioners located in the downtown Lansing area have volunteered to be on call at all times for emergency service to insure that every member of the Constitutional Convention shall have available twenty-four hours adequate medical care while he is away from his own doctor; now therefore be it

"RESOLVED, That the Constitutional Convention go on record expressing its appreciation of this arrangement enabling the Delegates to approach their deliberations with the knowledge that an important medical service protecting their well being is at their disposal; and be it further

"RESOLVED, That copies of this Resolution be transmitted to the Michigan State Medical Society and the Ingham County Medical Society."

U-M Conference News Story Suggested for MD Reading

"Health Economists"—Under that title as an editorial in the May number of this JOURNAL, *we announced that 75 health economists would assemble at the University of Michigan for three days from May 10 to study the demands for health care, and costs of illness, the role of medical care in collective bargaining and other trends. Wilber J. Cohen, Assistant Secretary of Health, Education and Welfare, and Walter Heller, Chairman of the President's Council on Medical Advisors, would participate. The United States Public Health Service had appropriated $27,000 to the University to finance and cover the costs of this meeting. We are herewith presenting the news report of this meeting. Please read it and make your own conclusions as to whether medicine faces an absolutely ruthless campaign of whole truths and half truths.*—EDITOR'S NOTE.

"High salaries of medical doctors make federal subsidies for medical school students unnecessary.

"This position was taken by a University of Chicago economics professor, W. Lee Hansen, at a conference on the Economics of Health Care held at The University of Michigan School of Public Health, Friday (May 11).

"Even though the costs of pre-medical and medical education are substantial and have been rising rapidly in recent years, the levels of income received by physicians more than compensate for these costs, Professor Hansen declared.

"Federal subsidies to medical students will only make medicine an even more profitable career than it already is, he said.

"Physicians earn a much higher rate of return on their total investment in education and training than do dentists and other male college graduates.

"Many young people are passing up an opportunity to invest in a profession which yields a highly attractive rate of return.

"Another professor declared that socialized medicine in Great Britain has proved to be a great success.

"Professor Almont Lindsey of Mary Washington College of the University of Virginia, *Fredericksburg, Va.*, said the economic status of medical doctors in Britain is much better under the National Health Service, started in 1948, than it was before World War II.

"The quality and adequacy of medical care have improved under the Health Program, and there has been no decline in the doctor's professional or even friendly interest in his patients, Professor Lindsey said. The physician is far more effective clinically because he can minister to all patients, irrespective of their economic status, and he can give them whatever treatment is required.

"The medical profession in Britain has an influential position in administration of the National Health Service, he said.

"The influence of the British Medical Association often has proved so decisive that there seems to be some foundation to the charge that control of the Health Service is weighted in favor of the doctors.

"At the U-M conference, 75 economists from throughout the nation are studying the allocation of resources of health improvement and the consequences of various methods of financing medical care."

Muskegon is Subject for Movie

The United States Public Health Service has produced a film showing how hospitals and nursing homes can work together to improve their services. Called "Working Together," this 20 minute, 16 mm, color film portrays an actual operating agreement between the DeBoer Nursing Home and the Hackley Hospital in Muskegon, Michigan.

"Working Together" depicts the technical and supervisory help given to nursing homes by cooperating hospitals with a patient exchange program. Various institutional aspects, such as patient referral, administrative procedures, training of personnel, purchase and handling of medicine, are brought out in the film. Scenes in the nursing home and in the hospital show a number of functions involving the care and handling of patients: physical restoration, food preparation and service, safety precautions. Institutional housekeeping also comes in for attention, and such activities as sanitation, equipment maintenance, and record keeping are treated in the film.

Two Detroit M.D.'s Honored

Two Detroit doctors were recently presented "Distinguished Service Citations" by the Wayne County Medical Society.

So honored were Joseph G. Molner, M.D., "in recognition of his unusual talents and his long and faithful service to this community and to the public at large," and Robert L. Novy, M.D., as "a distinguished physician, a medical leader and a man of intellectual strength and determination."

Doctor Molner, presently Wayne County health commissioner, recently resigned after 11 years as Detroit city health commissioner.

Doctor Novy was cited especially for his long service in voluntary prepayment plans and as president of Michigan Blue Shield for 13 consecutive years.

Lauds Professional Cooperation

"The veterinary and medical professions, the pharmaceutical industry and the public health service are an inseparable team in improving the health of animals and man."

So said Harry M. Weaver, M.D., vice president for research and development of Schering Corporation, at a recent symposium on "Comparative Medicine and Human Health" at Cherry Hill, New Jersey. It was the first such program to be sponsored jointly by the New Jersey Medical Society, Veterinary Medical Association and Department of Health.

Dr. Weaver noted the steadily increasing government support of research in the life sciences. He expressed the belief that too much centralization of research support tends to concentrate activity in currently fashionable approaches and leads to "misconstruing activity for progress."

"We must look to the medical and veterinary professions . . . to apply . . . the products of research for . . . maximal benefit to the patient, whether animal or man. . . . It is my own view that the maximal benefits of . . . research will never be attained by any central body, however well-intended," Dr. Weaver stated.

Seek Medical Writer-Editor

The American Medical Association is seeking an experienced medical writer in its Chicago office for the preparation and processing of editorial and manuscript material for yearly and bi-weekly medical publications. Applicants should have a good knowledge of terminology in clinical medicine and pharmacology; M.D. or Ph.D. desired but not required. Interested persons may write Director, Department of Drugs, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

S.S. Hope Serves Latin America

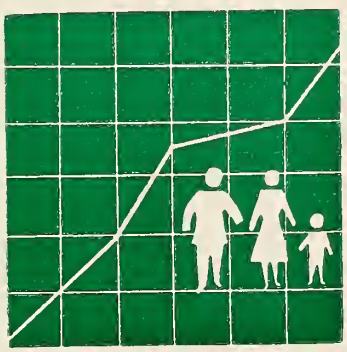
The *S.S. Hope* is now on its Latin American voyage, under sponsorship of the People to People Program. The primary mission of the *S. S. Hope* again is teaching and training in all fields of medicine and health.

The American Economic Scene at Mid-Century

(This is the second part of the text of a speech delivered by Dr. Hardwick at the 1962 MSMS County Secretaries-Public Relations Seminar in East Lansing. In the first part, June JMSMS, Dr. Hardwick described the evaluation of economic thought up to Dr. Karl Marx.)

By Clyde T. Hardwick, Ph.D.
Economic Consultant to MSMS

SOCIO ECONOMICS 833



That free, independent men would make a country strong and wealthy was the stand of Adam Smith in 1776. Smith was the founder of classical economics as a social discipline.

However, one bold, loud, and aggressive new voice was soon to be heard. In 1848, Dr. Karl Marx published his critical work called the "Communist Manifesto." This, together with his book called "Das Capital," was offered as the basis for scientific socialism. Marx was very critical of owners and managers who appropriated the values created by the labor of workers. Therefore, Marx proposed all ownership of production should be transferred from a few capitalists to the working class. Of necessity, in practice the government would represent the workers as the owner and operator. Thus, the scientific proposition of socialism was offered and government again would become the dominating force in economics as it was with the mercantilist. During the latter part of the 19th century and early part of the 20th century, there were a few followers of Marx in England, Germany, and other European countries, as well as a fringe group in America. The depression of the 30's and post-war years would offer a renewal of life for socialistic proposals.

Nevertheless, a restatement of the classical theories of Adam Smith and his followers was being promulgated at the beginning of the 20th century by an Englishman named Alfred Marshall of Cambridge University. This work brought new life and reality into proponents of private enterprise, especially Americans.

Despite this, however, even in America, the land of individualism, government was making new inroads into economic happenings. In 1887, the Interstate Commerce Act put railroads under government regulation; in 1890, the Sherman Act condemned and prohibited monopoly; in 1914, the Clayton Act and the Fair Trade Act put more teeth into control of monopoly. At this time Americans were following classical theories directed at the maintenance of competitive behavior. This approach is now labeled Microeconomics, or the economics of the individual firm or business.

Then we come into the depression of the 1930's and government regulation of banks, farming, labor and industry, as well as social security for almost everybody was launched on an enlarged scale never before equaled in America. Under the banner of modern democracy, government protection, government pump priming, and government assistance has continually invaded the economic spheres in the 20th century. Furthermore, one major field in today's study of economics is labeled Macroeconomics, which concentrates not on the individual firm but rather on aggregates. Thus, the national income, gross national product, total employment and unemployment have replaced initiative, marketing innovation, demand and supply and competitive forces. In the macroeconomic approach our attention is directed toward total economic growth which includes both private

and public economies. Of course it goes without saying that big business, big labor and big agriculture brought on the need for big government. The question always arises, where does it stop if ever once started?

The leadership of the government was needed during the great depression; many individuals needed help and protection; many reforms were needed in banking and money markets; many socially beneficial programs are welcomed by all. Nonetheless, America in the mid-20th century is a "mixed economy" with government an active partner of private business. Now the serious question yet to be fully answered centers around how far and how much government can a private capitalism have and still retain its time-honored features of individualism, freedom and independence. Without hesitation we must note that government contributions and assistance will always cost somebody some money. The budget of the Hoover Administration was about 6 billions and Kennedy proposes a 92-billion dollar program, or about 15 times as much. In economics there is no Santa Claus; even goods and services furnished by the government do not come free but must be paid for in hard-earned dollars of somebody's.

(Next month: "The Road Ahead".)



Prof. Clyde Hardwick, center, author of this article, presented the material at the 1962 MSMS County Secretaries Public Relations Seminar. Here he is shown at the Seminar visiting with the Seminar co-chairman, R. Wallace Teed, M.D. *(left)*, Ann Arbor, chairman of the MSMS Public Relations Committee, and Clay Tellman, M.D. *(right)*, Muskegon, then chairman of the county secretaries group.

The Blue Shield Story

Nearly 50 million citizens last year prepaid more than three-fourths of a billion dollars of their physicians' services through America's 70 Blue Shield Plans.

And this vast volume of service was rendered at a cost of less than 10 cents on the dollar. To some people, "nonprofit" operation implies inefficiency, high costs. Not so with Blue Shield, whose operating costs are the lowest in the business. "Nonprofit" in Blue Shield means that every salvable cent of the subscriber's dollar is utilized to provide the broadest possible scope of medical benefits. In a word, the "profits" of Blue Shield go to provide benefits to the Blue Shield subscribers, for whose benefit Blue Shield was created.

Blue Shield demonstrates that American physicians, employers, workers, farmers, and all others, working together in a free society, can solve vast social problems by voluntary cooperation, without recourse to governmental assistance or domination.

Drug Research, Sales Rise

The prescription drug industry set new records last year in both research expenditures and sales volume. A record $245.3 million, 8 per cent of sales, was spent on research and development in 1961. The figure is five times as much as was spent in 1951. The drug firms' investment in research is about triple that of the average industry.

Research scientists and supporting staff employees during 1961 numbered 13,500, 9 per cent over 1960 and 18 per cent more than in 1959.

Sales of prescribed drugs climbed 5 per cent worldwide to $2.9 billion. The drug industry's contribution toward achieving a favorable balance of trade is illustrated by its increase in foreign sales in 1961 to $645.5 million, 12 per cent over 1960.

Big States Pay

". . . in all federal efforts for 'poor relief,' the big states have paid immeasurably more than their proportionate share. One of the conundrums of American politics is that the bulk of the citizenry in Michigan has seemed unable to comprehend this built-in disparity. Rather, all 'do-gooders' everywhere have gone for whatever was offered in the way of poor relief, medical care, teacher pay and everything else in those lines—seemingly asking neither who exactly would pay the bills nor who would benefit."

—Jay G. Hayden
Detroit News Columnist

The Use and Abuse of Antibiotics In Surgical Patients

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THE RAPID development and intelligent use of antibiotic agents in the treatment of surgical infections during the past 20 years have had a profound effect on the practice and progress of surgery.[1,2] This effect has been both good and bad. The value and limitations of antibiotic drugs in the treatment and prevention of a wide variety of surgical infections have been firmly established.[3,4] At the same time, the ill effects of administration of these active agents, particularly when used indiscriminately, have become increasingly serious and have created new problems. A wide variety of complications and untoward developments have arisen to concern physicians, patients, hospitals and even large segments of the general population.[5,6] These problems have demonstrated the necessity of reviewing critically the indications for and usefulness of antibiotic therapy in the clinical practice of surgery.

As a result of the impact of antibiotic therapy's effect on clinical practice, a belief developed among surgeons that there were no longer any important problems in the prevention or control of surgical infections. This concept led in turn to the general and indiscriminate prophylactic use of many antibiotic agents during the past 15 years. It also brought into sharp focus the obvious limitations of chemotherapy in the prevention of infections and emphasized some of the factors contributing to the present problem of postoperative wound infection.[7,8]

The prevention of infection in elective surgical wounds represented one of the great milestones in surgery. It was achieved through the development of antiseptic and aseptic technique made possible by the discoveries of Pasteur, Lister, Von Bergman, and others. Surgery was thus relieved of one of its greatest terrors, the absence of which permitted the rapid and progressive extension of its boundaries during the past 70 years.

Recent evidence indicates, however, that this heritage has been more or less taken for granted.[9,10] Infection has again become a problem of increasing importance in hospital practice in many areas throughout the world. The present reservoir of antibiotic-resistant and virulent bacteria in hospital environments and a rising infection rate, despite antibiotic prophylaxis, has resulted in the appointment in America of committees by the American College of Surgeons, the





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See page 858 for biography of Dr. Altemeier.

American Medical Association, the American Hospital Association, and other national organizations to study this problem and to make recommendations for its solution.

Bacterial Resistance to Antibiotic Agents

It is generally agreed that the hemolytic *Staphylococcus aureus* is the organism of greatest importance in this problem and that acquired resistance of the hemolytic *Streptococcus* and the *Pneumococcus* presents no significant difficulty. There is evidence, however, that the hemolytic *Staphylococcus aureus* is but one facet of a general phenomenon involving other microorganisms, both Gram-negative and Gram-positive. Recent reports of Finland,[11] Spaulding et al,[12] Pulaski,[13] and Markley,[14] indicate that resistant Gram-negative bacteria are also producing an appreciable number of serious infections in surgical wounds as well as in the urinary tract, and that this number appears to have increased during the past 15 years. The *Enterococcus, Streptococcus viridans,* and Bacillus tuberculosis have also manifested ability to acquire resistance. Fortunately, the Type A *Streptococcus hemolyticus* and *Pneumococcus* have remained uniformly and highly sensitive to penicillin and other antibiotic agents. The present problem is concerned principally with the *Staphylococcus,* however, and presumably, the methods effective in its control will be applicable to other antibiotic-resistant bacteria as well.

The emergence of antibiotic-resistant strains of staphylococci and other bacteria has paralleled the introduction and widespread use of successive antibacterial agents in different localities throughout the world.[5] There is disagreement as to its exact mechanism, but it is probably primarily genetic and the result of spontaneous mutations occurring in the course of microbial multiplication, the so-called "mutation selection" hypothesis. Another possibility, the hypothesis of "phenotyptic adaptation" has been advanced, and it is based upon the development of increased resistance to antimicrobial drugs without genetic change as an adaptative phenomenon. Opinions differ as to which of these hypotheses obtains, but the two are not considered to be mutually exclusive.

The resistance pattern of the various bacterial strains during the past 10 years is noteworthy. At first, there were a large number of susceptible isolates, but with continued use of the various antibacterial agents, the incidence of resistant strains increased. Whenever the agent has been withdrawn for a substantial period, the number of sensitive strains again has risen. The sequence, viewed in the light of the evolutionary considerations discussed above, suggests that unnecessary, inadequate, or ineffective antimicrobial administration contributes to the development of antibiotic-resistant microorganisms. Other factors which seem to have favored the emergence of resistant bacteria include violation of aseptic and antiseptic techniques, antibiotic treatment based upon incorrect diagnosis, antibiotic treatment based upon incorrect sensitivity reports of infecting bacteria, inadequate antibiotic dosage, and prolonged delay in indicated operative intervention.

Hospital Acquired Infections

During antibacterial therapy for a specific infection, the original etiologic agent may remain sensitive, but other drug-resistant bacteria may emerge in the area of infection, the oropharynx, bowel, respiratory tract, or genitourinary tract. In an atmosphere continuously exposed to antibiotics, patients, physicians, nurses, orderlies, maids and other personnel tend to shed their antibiotic-sensitive strains of bacteria resident on the skin and in the mucous membranes of the nasopharynx and intestinal tract. Thus, virulent and antibiotic-resistant bacteria, can readily enter the "vacuum" produced by suppression of sensitive strains during antibiotic therapy and induce a *carrier* state or produce clinical infection. In this way, the hospital may become a potent reservoir of virulent and drug-resistant bacteria, and cross infections or superinfections with such *reservoir* strains are likely to occur, particularly in susceptible debilitated patients. The chance for resistant bacterial colonization and cross-infection in the individual patient increases with the length of his hospital stay, the intensity of exposure, his susceptibility, and the types of his treatment.

Many of the strains of *Staphylococcus aureus* capable of producing infections, particularly those found in the community at large, are still susceptible to penicillin and to a majority of the other antibiotic agents. As a result, the strains carried by patients on admission to the hospital are less frequently resistant than those which they acquire within the hospital. Patients who develop staphylococcal infections during hospitalization, may then become potential spreaders of virulent antibiotic-resistant strains within the community after their discharge.

Whether or not this problem of hospital-acquired infection is actually greater now than in the past is an academic question which cannot be answered factually on the basis of available data.[23,26] There is a general impression that infections of this type were relatively infrequent before World War II, but that their in-

cidence has increased progressively since. Although precise information on either past or present experience is unavailable for valid comparison, the fact remains that staphylococcal disease exists in hospitals today in epidemic as well as endemic forms, and varies with the types of disease and treatment peculiar to the hospital.[5]

Most, if not all, hospital departments are involved in the problem. Those lesions which may occur on a surgical service include postoperative and posttraumatic wound infections, secondary or cross infections, carbuncles, furuncles, osteomyelitis, mammary abscesses, septicemia, pyodermia, and others. The recent increase in abscesses of the breast of lactating mothers is noteworthy in relation to hospital nursery infection of the newborn infants whom they nurse.

The prevention and control of hospital-acquired infections does not depend upon the prophylactic administration of antibacterial agents. Since the most important components of the hospital reservoirs of antibiotic-resistant and virulent staphylococci are the patients and personnel, direct attention must be given to principles of isolation of individuals with active infections, aseptic and antiseptic techniques, and good housecleaning. The surgeon should assume his legal and rightful rsponsibility for his patient's welfare in the operating room and should insist upon the observance of aseptic and antiseptic technique by all personnel in that area. Personnel with established staphylococcal infections should be excluded from the operating room, nursery, laundry, and other areas of contact with patients. Carriers harboring the same phage-type epidemic strains of staphylococci as those found in local hospital infections should be treated with appropriate antibacterial drugs. Present evidence indicates, however, that carriers of coagulase and mannitol positive staphylococci need not be excluded from the operating pavilion as long as adequate masking and aseptic precautions are taken, unless a local problem of infection exists.

It should be remembered that patients who are particularly susceptible to these resistant infections are those undergoing intravenous therapy with indwelling venous needles or catheters, multiple puncture techniques such as spinal taps, intracardiac diagnostic procedures, thoracentesis and paracentesis, or repeated catheterizations of the bladder. Consequently, these procedures should be kept at a practical minimum consistent with good surgical care. Other factors which appear to increase the susceptibility of surgical patients to hospital-acquired, antibiotic-resistant infections include severe metabolic diseases such as uncontrolled diabetes mellitus, steroid hormone therapy, operative treatment of poor risk or debilitated patients, prolonged operations, leukemia or lymphoma, neonatal status, fibrocystic disease of the pancreas, and irradiation therapy. The dressing of surgical wounds should always be performed carefully and with strict attention to aseptic techniques in an effort to prevent cross-contamination. The technique using a two man dressing team with intermediate sterile tray is recommended.

The importance of the problem of hospital-acquired infections can also be judged in part by its sociologic and economic effects. Increased morbidity and mortality, costly and prolonged hospitalization, additional and complicated treatment, and loss of working time and money from unemployment are a few of the most important results. A problem has arisen pertaining to the settlement of compensation claims arising from hospital-acquired infections in personnel who are forced to discontinue work. Unfavorable publicity in the lay press has occurred almost daily and has posed the question of potential liability of the hospital and physician for alleged malpractice.

Results of Overconfidence in Prophylactic Antibiotic Therapy

Antibiotic therapy has produced in many surgeons a blind reliance on the various antibacterial agents. Their prophylactic use has often given an erroneous impression that everything necessary has been done for the prevention of infection, or that its development has been the result of their failure. The evidence clearly indicates, however, that antibiotic therapy cannot be depended upon to prevent the development of local infection if established surgical principles or important technical details have been ignored.[15] The appearance of infection in wounds of violence instead is usually the result of inadequate removal of devitalized tissue and foreign bodies or the result of postoperative development of necrosis caused by strangulation of large bits of tissue, impairment of circulation, tight closure of wounds, or constricting dressings or casts, antibiotic therapy not withstanding. The type of infection depends largely upon the nature of the bacteria contaminating the wound, their number and their virulence.

Prophylactic antibiotic therapy has also tended to discredit the importance of aseptic surgical technique in modern surgical practice, and a gradual relaxation of the "surgical conscience" has been the result.[16] This has been manifested by carelessness in preoperative preparation of the operative area, the use of inadequate

masks, reliance upon "cold sterilization" with various antiseptic solutions, cross-contamination of dressing carts and wounds, and the adoption of labor-saving methods of sterilizing and packaging instruments, dressings, and other materials necessitated by shortages of nursing and other personnel. The trend of exposing wounds postoperatively to the air without coverage by adequate dressings, the reluctance to scrub the hands and forearms between operative cases, and the failure to change gloves punctured during operations are additional indications.

The discontinuation or relaxation of the principle of *isolation technique* for patients with virulent infections in hospital wards, rooms, or operating rooms is another manifestation of overconfidence in prophylactic antibiotic therapy and the further deterioration of the "surgical conscience."

The persistent trend toward extending antibiotic prophylaxis indiscriminately to every patient undergoing an operative procedure has contributed to the development or emergence of a wide variety of resistant bacterial strains in the hospital environment. In a similar manner, the "exposure method" of treating wounds and burns appears to have aided the emergence and dissemination of virulent and resistant bacteria in the hospital atmosphere and thence into other wounds.

It is obvious that postoperative wound infections produced by resistant bacteria present a doubly serious problem since the patient is deprived of treatment with effective antibacterial agents.

Special Considerations of Wounds of Violence

A large proportion of patients seen in the modern practice of surgery have wounds of violence sustained under a variety of conditions. For such patients, the surgeon strives to reconstruct the injured tissues and secure primary wound healing. To attain these goals, he may make intelligent use of prophylactic antibiotics as an important but adjunctive therapeutic aid.[17]

Wounds of violence are particularly prone to develop infection because of their gross contamination, the presence of large areas of devitalized tissue and retained foreign bodies, the involvement of regions particularly susceptible to infection, the frequent association of vascular injuries, and delayed or faulty surgical therapy. The development of infection in wounds increases the period of morbidity, produces further destruction of tissue, suppresses the process of healing, and may have a significant effect on mortality.[18] Tissues destroyed by bacterial invasion are usually replaced by scar tissue which may affect function as well as cosmetic appearance.

Although normal tissues have a remarkable resistance to microorganisms and their effects, traumatized or devitalized tissues have limited or little capacity of resistance. Any dead tissue remaining in a wound may invite and support the growth of virulent as well as relatively non-virulent or saprophytic organisms. If devitalized tissue is permitted to remain or develop in the wound of violence, infection is probable in the face of the concomitant bacterial contamination. It may also be assumed that early and adequate operative removal of devitalized tissue and foreign material is of primary prophylactic importance, and that antibacterial therapy is necessarily adjunctive.

The chief prophylactic benefit of antimicrobial therapy lies in the attenuation, limitation, or control of infection by residual microorganisms in wounds of violence after debridement and operative repair, or in the localization of infection developing within wounds in which surgical treatment is necessarily inadequate, delayed, or impossible.[19]

Principles of Antibiotic Therapy in Injured Patients

Clinical experience has repeatedly shown that each of the various antibacterial agents must be used intelligently to obtain its full effects. Failure to observe certain established principles in the management of injured patients with antimicrobial agents may result in incomplete or limited effects, or even failure.

The importance of a *correct clinical diagnosis* and evaluation of the injured patient's condition is fundamental. Careful examination should be done to determine the cause, location, nature, extent, and duration of the injuries. The existence of shock and the presence of special wounds such as crushing injuries, or penetrating wounds of the abdomen, chest, or central nervous system, should be noted. Any general factors which might contribute to bacterial invasion, such as diabetes mellitus or concomitant steroid therapy, should be kept in mind and detected if present. Additional valuable information can be gained about the probable types of contaminating or infecting bacteria. Direct observation may anticipate the most likely type of infection and indicate whether it will probably be localized or invasive, mild, serious, or fulminating. Immediate examination by smear and culture of exudates obtained from infected areas is also recommended for additional diagnostic information.

Proper *timing of operative treatment* is obviously

important. If only bacterial contamination exists in wounds, prompt surgical excision and removal of all devitalized tissue, clotted blood, and foreign bodies within four to six hours after injury are most important. Antimicrobial therapy should be started before operation and as part of resuscitative therapy, however, and continued postoperatively.

The *earlier* that *antibiotic therapy* is started after injury, the better its effects. Generally speaking, the antimicrobial agent selected should be administered intravenously and promptly, after the seriously injured patient has been admitted to the hospital and before being taken to the operating room. If infection has already developed, early therapy gives the best chance of obtaining control of the invasiveness of the process, with either spontaneous resolution of the lesion or limitation of the bacterial slough to a minimum.

The *selection* of a proper and safe antibiotic agent should be made on the basis of its effect on the contaminating or infecting bacteria presumed or known to be present. When possible, one or two effective agents should be used instead of a "shotgun" mixture of three or more agents. Evidence indicates that the use of multiple agents will not prevent the development of infection by organisms such as the hemolytic *Staphylococcus aureus* and the various gram-negative bacilli if the local conditions are favorable. Of more importance is the fact that infection emerging under the screen of multiple antibiotic therapy will be caused by bacteria resistant to the antibiotics used as well as to other related antibiotic agents. The use of Staphcyllin gives excellent promise in the control of Staphylococcal antibiotic-resistant infections.

The *dose* of the antibiotic agent chosen should be sufficiently large to produce antibacterial concentrations in the blood, tissues, and exudates at the sites of injury or potential infection. In addition, the duration of therapy should be sufficient to permit the natural defense mechanisms of the body to dispose of the inhibited, but often still virulent, bacteria. Since most agents exert only a bacteriostatic effect, failure to continue treatment long enough may result in the delayed appearance of an infection. Experimental and clinical data also suggest that progressively larger doses of some of the antibiotics, notably penicillin, have an increasingly greater antimicrobial effect in the prophylaxis of post traumatic infections, such as gas gangrene.[20]

Wounds of violence are frequently associated with shock produced by one or more causes. This complication may affect the *method chosen for the administration* of antibacterial agents.[21] If shock is present, absorption of antibiotic agents given by intramuscular or oral routes may be retarded, inadequate, or capricious. For this reason the intravenous route is recommended until the shock has been adequately treated and controlled.

The *local application* of chemotherapeutic agents to wounds is seldom indicated in the management of patients with acute injuries and is not recommended. During the early years of World War II it was common practice to place sulfonamide powders in fresh traumatic wounds, and this practice was extended to placing various antibiotic agents within the peritoneal cavity during operations on the gastrointestinal tract. Extensive experience has showed that local sulfonamides in fresh wounds impaired normal healing mechanisms by acting as irritating foreign bodies and by damaging new cellular growth.[22] Furthermore, uneven local concentrations did not result in effective blood levels or uniform distribution of the drug to the contaminated areas.

For similar reasons, the intraperitoneal administration of antibiotics is also considered undesirable. Recently, occasional instances of sudden death and central nervous system toxicity have been reported to follow the intraperitoneal instillation of neomycin in patients undergoing intestinal surgery.

Systemic prophylactic antibacterial therapy is recommended, however, for all patients with serious wounds of violence, such as major soft tissue wounds, compound fractures, injuries of the flexor tendon sheaths, penetrating wounds of the abdomen or the chest, penetrating wounds of the central nervous system, injuries involving the oral or pharyngeal cavities, and injuries of the perineum.[23] This type of antimicrobial therapy should be given systemically and as soon after injury as possible, being continued postoperatively. If the patient is in shock, the chemotherapeutic agent should be administered intravenously for reasons described previously.

Soft Tissue Wounds and Burns.—No antibiotic therapy is recommended for trivial or minor injuries. The following agents are recommended for initial prophylaxis in serious or severe injuries:

1. Aqueous sodium penicillin G or potassium penicillin G in doses of 250,000 to 500,000 units may be given intramuscularly or intravenously every six to eight hours for five days in patients who are not sensitive. Erythromycin (Ilotycin) ethyl carbonate or erythromycin (Erythrocin) lactobionate may be used as an alternate. It is questionable whether any sig-

nificant additional protection can be obtained from the combined use of penicillin with a broad-spectrum antibiotic agent. Accumulative data indicate that invasive infections by the *beta-hemolytic Streptococcus* and *Pneumococcus* can be successfully prevented by antibiotic prophylaxis, but there is little or no similar evidence of successful prevention of infections caused by the hemolytic *Staphylococcus aureus, Ps. aeruginosa, P. vulgaris, E. coli,* and other gram-negative bacilli.

2. If desired, one of the broad-spectrum antibiotics such as chloramphenicol, demethychlortetracycline, tetracycline hydrochloride, chlortetracycline hydrochloride, or oxytetracycline hydrochloride may be given systemically in doses of 500 mg. every eight hours, or 250 mg. every four hours, and continued for three or four days. The need for such therapy is then reconsidered and continued, discontinued, or modified as indicated by the presence or absence of infection.

3. For patients with less severe wounds, the oral route may be used to advantage for the administration of either penicillin or the broad-spectrum agents.

Compound Fractures.—The same general plan of prophylaxis as outlined in the preceding paragraph is useful. In patients with wounds exhibiting extensive tissue necrosis along with compound fractures, larger doses of aqueous penicillin G, up to 1,000,000 units every three hours, may be indicated.

Penetrating Wounds of Abdomen.—There is considerable evidence to indicate that antimicrobial therapy is of prophylactic value in preventing death from peritonitis and sepsis in patients with penetrating wounds of the abdomen. Adequate systemic antimicrobial therapy used in conjunction with early operation has reduced the mortality in such patients from 40 to 60 per cent before 1942 to 9 to 11 per cent since 1942, and has minimized peritonitis as a cause of death at the Cincinnati General Hospital.[24] It is recommended that the antimicrobial therapy be given preoperatively by the intravenous route along with resuscitation therapy. This should be done as soon as possible after the patient's admission to the hospital in an effort to provide an antibacterial concentration in the intraperitoneal fluid before and during the time of operation.

The following plan has been used at the Cincinnati General Hospital during the past 10 years:

1. 1,000,000 units of aqueous Penicillin G in physiologic sodium chloride solution of 5 per cent dextrose in water is infused intravenously as soon as possible after the patient's admission to the emergency unit as part of preoperative resuscitation. This infusion is continued during the operation.

2. At operation, no antimicrobial agent is instilled topically into the peritoneal cavity.

3. Postoperatively, 1,000,000 units of aqueous penicillin G and 500 mg. of one of the tetracyclines or chloramphenicol (Chloromycetin) is given intravenously every eight hours for a period of three or four days.

4. Thereafter, aqueous penicillin G in doses of 250,000 to 500,000 units is administered intramuscularly every six hours for an additional two to six days.

5. The broad-spectrum is discontinued on the fourth day if there is no obvious infection and if the temperature is normal. Broad-spectrum antibiotic therapy is continued if evidence of infection persists or is modified as indicated by any emergent antibiotic-resistant bacterial infection.

Penetrating Wounds of Chest.—A plan of antibacterial prophylaxis similar to that described in the section on penetrating wounds of the abdomen may be used.

Complications of Antibiotic Therapy

A variety of complications or untoward reactions may develop in patients undergoing therapy with any of the antibiotic agents. It is important for the clinician to be informed as to their nature and to be alert for their occurrence. Those complications caused directly by the antimicrobial agents include: (1) toxic reactions related to the type and amount of drug given, (2) hypersensitivity reactions, and (3) idiosyncrasies. Although toxicity of the various agents differs considerably, each of the drugs has been shown to be capable of producing one or more types of reaction. Those produced by overdosage can be readily prevented or controlled, but the accumulation of high serum concentrations in infants, aged, or debilitated patients can easily be overlooked.[25] Those secondary to hypersensitization of the patient are becoming increasingly important, particularly in the instance of penicillin. Fortunately, idiosyncrasies to these agents including chloramphenicol (Chloromycetin) have been very rare in our experience.

Another significant complication is secondary or superinfection caused by antibiotic-resistant bacteria developing during chemotherapy. The suppression of sensitive bacteria in mixed infections by antibiotic agents may be followed by a marked change of the

bacterial flora in the wounds or in the various systemic tracts. Under these circumstances bacteria which are normally of lesser virulence may become invasive and may even invade the blood stream. Such infections have generally been produced by the hemolytic *Staphylococcus aureus* and gram-negative bacilli such as *Proteus vulgaris, Pseudomonas aeruginosa, Escherichia coli,* or *Aerobacter aerogenes.*

A troublesome complication which also may occur in the seriously injured patient is the *masking* of any infection occuring in the vicinity of the wound. Attenuation of infections by chemotherapeutic agents may so change the usual signs and symptoms that recognition and localization of the infection becomes very difficult. Under these circumstances, temporary discontinuation of the antibiotic therapy may be useful in permitting the infection to become more active and therefore more readily detectable.

Monilial and *fungal* infections of the oral cavity, perineal region, and skin may follow the administration of broad-spectrum antibiotics, and such infections may become particularly difficult to control.

Summary

The widespread use of antibacterial agents in the prevention and treatment of surgical infections has exerted a profound effect on the practice and progress of surgery. The miracles that have followed the use of antibiotics have been widely publicized, and many surgeons have come to believe that the prevention and control of postoperative infections are no longer important problems. The basic principles of asepsis and antisepsis which permit the prevention of infection in elective surgical wounds have frequently been neglected, and blind reliance has often been placed on the effectiveness of antibiotics used prophylactically. This practice has brought into sharp focus the obvious limitations of chemotherapy in the prevention of infections and has emphasized the present problems in postoperative wound infections.

The indiscriminate use of prophylactic antibiotic drugs has been a major cause of the increase in bacterial resistance to these drugs, particularly in the case of the hemolytic *Staphylococcus aureus* and the various gram-negative bacteria, which are frequent causes of serious wound infections. The continued use of specific antibiotic agents has increased the incidence of strains resistant to those agents.

Hospitals have become reservoirs of antibiotic-resistant and virulent bacteria in patients, physicians, and other personnel who develop infections or become carriers of resistant strains. These resistant strains may infect new hospital patients, particularly those who are debilitated or unusually susceptible through cross infection or superinfection. Thus, hospital-acquired infections may be particularly virulent and difficult to cure. The prevention of hospital-acquired infections, including post-operative wound infections, depends not upon the primary use of prophylactic antibiotic therapy, but upon established principles of isolation of infected individuals, aseptic and antiseptic techniques during and after operations, and good housecleaning. Unnecessary, inadequate, or ineffective antimicrobial administration contributes to the growth of antibiotic-resistant microorganisms.

Hospital personnel with established staphylococcal infections should be excluded from the operating room, nursery, laundry, and other areas of contact with patients, while carriers of the same epidemic strains of staphylococci as those found in local hospital infections should be treated with appropriate antibacterial drugs while being temporarily excluded from the operating room.

Antibiotic therapy cannot be expected to prevent local infection in wounds of violence or in operative wounds if established surgical principles or important technical details have been ignored. A gradual relaxation of the "surgical conscience" is manifested by carelessness in many details of *aseptic technique* in the operating room and at the bedside, and by discontinuation of *isolation technique* for patients with virulent infections. The "exposure method" of treating wounds and burns appears to have aided in the emergence and dissemination of virulent and resistant bacteria in the hospital environment and thence into other wounds.

In the surgical treatment of wounds of violence, the intelligent prophylactic use of antibiotics is adjunctive therapy and of secondary importance to early and adequate operative removal of devitalized tissue and foreign material. The main benefit of this therapy lies in the attenuation, limitation, or control of infection from residual microorganisms in such wounds after debridement and operative repair, or in the localization of any infection developing within wounds in which surgical treatment was necessarily inadequate, delayed, or impossible.

Systemic prophylactic antibacterial therapy is recommended for all patients with serious wounds of violence, such as major soft tissue wounds, compound fractures, injuries of the flexor tendon sheaths, penetrating wounds of the abdomen or of the thorax or of the central nervous system, injuries of the mouth and pharynx, and injuries of the perineum. The need for

this therapy should be reconsidered after 72 to 91 hours. For patients in shock, the antibacterial drug should be administered intravenously because of poor absorption from the gastrointestinal tract and from subcutaneous tissues.

The correct clinical diagnosis of the injury, the selection of a proper and safe antibiotic agent, the determination of an adequate dose, and the mode of administration are important points in proper antibiotic therapy. The local use of antibiotics in fresh wounds, including burns, is not advised.

Complications which may occur as a result of antibiotic therapy include: (1) toxic reactions in various organs; (2) allergic reactions, as seen with penicillin; (3) secondary or superimposed infections by bacteria developing resistance during chemotherapy with a change in bacterial flora of the wound or of the gastrointestinal tract; (4) masking of latent infection so that the usual signs and symptoms are suppressed; and (5) the development of fungus infections which may become particularly difficult to control.

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(Additional References are on Page 873)

Biography

Dr. William A. Altemeier is Christian R. Holmes Professor of Surgery and Chairman of the Department at the University of Cincinnati, the Director of Surgical Services at the Cincinnati General Hospital, and Surgeon-in-Chief at Children's and Holmes Hospitals. He is a native of Cincinnati (born July 6, 1910) who received his premedical and medical education at the University of Cincinnati. After an internship at the Cincinnati General Hospital in 1933, he went to Henry Ford Hospital in Detroit, for his surgical training where he served as Chief Surgical Resident in 1939. During this interval he received his M.S. degree in Surgery from the Graduate School of the University of Michigan. He returned to the University of Cincinnati in 1940 where he served as Instructor and Assistant Professor of Surgery until 1952, when he was appointed Professor of Surgery and Chairman of the Department.

Dr. Altemeier is Secretary of the American Surgical Association and has been President of the Central Surgical Association, Vice President of the Western Surgical Association, President of the Henry Ford Hospital Medical Association, and President of the Cincinnati Surgical Society. He was Vice Chairman of the American Board of Surgery and a member of the Editorial Boards of the *Annals of Surgery*, *The American Surgeon*, *Surgery*, and *Journal of Surgical Research*.

Dr. Altemeier's interests in surgical research have been varied and have included both clinical and laboratory investigations, particularly in the fields of surgical infections, chemotherapy, shock, diseases of the gastrointestinal tract, and cancer. Since 1942, he has served as responsible investigator on numerous research projects under contract with the U.S. Army and the U.S. Public Health Service under supervision of the National Research Council. He has also served as a member of the Division of Medical Sciences of the National Research Council, and is currently a member of its Subcommittee on Trauma. In 1953, he was appointed Consultant to the Surgeon General of the U.S. Army to study the problem of infection and delayed shock in the Korean battle area.

He is currently serving as Consultant to the Surgeon General of the U.S. Public Health Service and a member of the Committees on Hospital Acquired Infections of the American College of Surgeons and the American Hospital Association.

Surgical Management of Hemorrhage Due to Gastritis

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MASSIVE gastrointestinal bleeding frequently taxes the diagnostic acumen and therapeutic skills of both internist and surgeon. The evolution of the management of these cases in the last ten years has been towards accurate diagnosis, both preoperatively[1-4] and intraoperatively.[5-7] As diseases are removed from the idiopathic classification, improvement in the results of the treatment should result.

However, in spite of accurate diagnosis, the pathogenesis and etiology of some of the conditions causing massive bleeding are poorly understood. The treatment therefore remains empiric. The "gastritides" fit into this category. My intention is not to discuss the conservative medical management of gastritis, but to provoke thinking about the surgical management of these cases.

Undoubtedly there are many cases of gastritis treated successfully by subtotal gastrectomy which are not reported. The question is: Should gastric hemorrhage without cause be handled by subtotal or total gastrectomy? The following case is presented since a successful outcome was obtained by secondary total gastrectomy.

Case History

A. B., a 47-year-old, white male factory worker, was admitted to the hospital on September 3, 1959, complaining of hematemesis and melena. He denied abdominal pain. He was not a user of alcohol or drugs. He had been in good health immediately prior to this episode.

Family History.—An older brother had had a severe upper gastrointestinal hemorrhage due to gastritis and was treated by subtotal gastrectomy.

Past History.—In 1953, he had melena sufficient to reduce the hemoglobin to 11.5 grams per cent. He was treated empirically for an ulcer. In 1955, at the age of 43, he had another episode of melena. Examination by x-ray of the gastrointestinal tract revealed no organic lesions. He had had a shrapnel wound of the chest in 1941. He had a left chest and kidney injury in 1944.

Physical Examination.—The patient was a well-developed, well-nourished, white man, with a blood pressure of 110/78 and a pulse of 108. The skin was pallid. There were small scars present over the right arm, right chest, and left face.

Laboratory Findings.—The hematocrit was 45. The hemoglobin was 14.2 volumes per cent. The white cell count was 15,000. A urinalysis was within normal limits.

Course in Hospital.—During the night, the patient had a massive hemorrhage with hematemesis and melena. His blood pressure fell to 50/40. He was given 1500 cc. of blood in the next eight-hour period. An x-ray examination of the upper gastrointestinal tract was performed without disclosing the site of the bleeding. Liver function tests gave normal findings. Bleeding, clotting and prothrombin times were normal. The patient was treated medically. However, the bleeding continued at an estimated rate of

TABLE I. REPORTED CASES OF "GASTRITIS," SURGICALLY TREATED, COMPLICATED BY POSTOPERATIVE MASSIVE HEMORRHAGE

Case	Author	Primary Operation	Secondary Operation	Result
1	Kirtley	Subtotal gastrectomy	Total gastrectomy	Cure
2	Parker	Subtotal (75%) gastrectomy	Subtotal (80%) with devascularization of stump	Cure
3	Parker	Subtotal (75%) gastrectomy	Subtotal (80%) with devascularization of stump	Cure
4	Author	Subtotal (75%) gastrectomy	Total gastrectomy	Cure

The usually recommended management by surgery of massive gastrointestinal bleeding without cause is subtotal gastrectomy. Berman recommends a "very extensive" gastrectomy in these cases.[8] Most surgeons have approached this problem in a fairly standard fashion disagreeing only as to whether or not a gastrectomy should be done.

Some surgeons have had experience with recurrent bleeding after the usual 75 per cent resection for gastritis. For this complication an almost total gastrectomy has been recommended.[9-11] Table I compiles the experience recorded. However, Palmer[1] has recently stated that if bleeding due to gastritis cannot be controlled medically and surgery becomes necessary, a primary total gastrectomy is the choice of surgical procedures to be followed. The mortality in the cases which he cited which were handled in the "standard" fashion was 50 per cent; subtotal gastrectomy failed 75 per cent of the time.

2,000 cc. per 24 hours. Surgical exploration was done 60 hours after admission. Gastrotomy revealed diffuse bleeding from the posterior surface of the stomach. No ulcerations

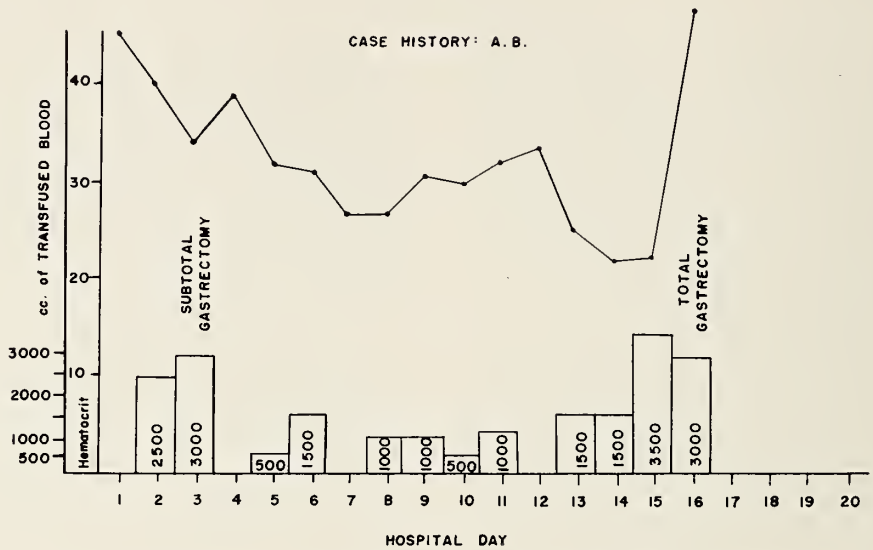


Fig. 1. This graph shows the amount of blood replacement necessary to maintain patient A.B. during his course of hospitalization and the time relationship of surgical therapy.

could be visualized. A 75 per cent subtotal gastrectomy was performed.

The immediate postoperative course was encouraging, but 48 hours after operation, bleeding recurred. The bleeding continued at a slow rate, requiring about 1000 cc. of blood a day for maintenance. On the fourth postoperative day, the anastomosis was functioning quite satisfactorily and the bleeding ceased. However, 24 hours later, on the fifth postoperative day, the bleeding recurred. On the seventh postoperative day, with continued bleeding, the stomach was lavaged with ice cold water apparently arresting the bleeding. But this was only temporary. Bleeding episodes occurred off and on the following week and increased in rate to 1500 to 2000 cc. per day. On the thirteenth postoperative day, a secondary exploration was carried out through a thoraco-abdominal incision. Exploration revealed diffuse oozing in the gastric pouch. The remainder of the stomach was resected. A splenectomy was performed for technical reasons; gastrointestinal continuity was re-established by a "loop" esophago-jejunostomy placed anterior to the colon. Prior to surgery he had received 17,000 cc. of blood and the hematocrit was 22 volumes per cent. His course is depicted in the accompanying illustration.

He tolerated the operative procedure well. The postoperative course was uneventful except for an abscess of the wound which was opened. His convalescence was prolonged, but he maintained his weight and hematocrit. The pathological report revealed diffuse and focal exudation of lymphocytes, plasma cells, and mononuclear cells. The histological findings of the gastric remnant revealed a similar picture with good healing of the previously constructed gastrojejunostomy. The pathological diagnosis was chronic gastritis, mild.

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Antibiotic Poisoning?

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CASES of toxic bone marrow depression have been reported, following absorption of a number of chemical substances: antibiotics, particularly chloramphenicol, which has led to a warning label of this drug, and other household industrial poisons. It is the purpose of this article to present a similar case associated with administration of Panalba.

Case Report

A 15-months-old boy who had enjoyed good health, except for a non-specific infection of the respiratory tract, was taken to his family physician because of an acutely inflamed pharynx, a rectal temperature of 104 degrees F. and a scarlatiniform rash. He was placed on Panalba suspension, two teaspoons at once and one teaspoon four times daily. The child appeared to be recovering uneventfully, but suffered a relapse on the fifth day and was returned to the family physician who noted a generalized petechial and purpuric eruption. The temperature was elevated to around 104 degrees F. with the suspicion of a possible meningococcemia with Waterhouse-Friderichsen syndrome, and a pediatrician (Dr. R. d'Adesky) was consulted. He was admitted to the hospital the same day.

On admission, he was pale, febrile, irritable and covered with purpura and ecchymoses. A blood culture was taken, a lumbar puncture was performed, yielding clear, normal spinal fluid. The diagnosis was established by the blood studies which showed anemia, agranulocytosis, and thrombocytopenia. The red blood count was 3,600,000; hemoglobin 9.7; white blood count 6000 with 95 per cent lymphs; platelet count was 20,000. Treatment was started with Depo-medrol, Vitamin C and K, Tylenol and deronil. The next two days his blood picture showed gradual deterioration, the anemia progressed, the hemoglobin fell to 9 grams, then to 8 grams and the white count went from 3,200 on February 26 to 2,400 on February 27. The platelet count dropped to 10,000. The result of the bone marrow examination confirmed the diagnosis of extreme depression of all the elements. No leukocytes of the granular type were seen, a few scattered mononuclear red cells of the lymphatic series were seen and were immature. In view of the child's precarious condition, a transfusion of 500 cc. of fresh blood was given to him, after which his red blood count rose to 4,500,000 with hemoglobin of 12, white blood count 4,500 with 10 per cent polys, 90 per cent lymphs and platelets 21,000.

It was believed that in view of the almost complete ablation of the marrow, a bone marrow graft would be his only chance of survival, and for that reason he was transferred to Detroit Children's Hospital, under the care of Dr. Zuelzer. The diagnosis of bone marrow ablation was confirmed by blood and marrow studies.

No platelets were found at all. White blood count was 2,500 with 95 lymphs, and hemoglobin still up. As the child was found to have a perirectal abscess with temperatures around 106 degrees F. he was placed on Achromycin and Tylenol while waiting for the proper time to open the abscess. Soon afterward he began to have gross rectal and urinary bleeding. An hour or so later, he was found in bed cyanotic, pulseless, and could not be revived.

Here, we are confronted with a child who came for an acute bacterial infection, who received Panalba, and who developed a fulminating course with anemia, thrombocytopenia, agranulocytosis, and complete destruction of the bone marrow.

Can this bone marrow ablation be attributed to Panalba? Or were his initial symptoms the first manifestations of agranulocytosis? It is difficult to draw conclusions on the basis of this one case. However, we believe that questionable cases like this should be on record to help in the long-term evaluation of our newer drugs. To our knowledge, such reactions have never been reported after administration of Tetracycline, but rashes and leukopenia have sometimes been seen after medication with Albamycin. Such toxic reactions are known to occur after Chloramphenicol, which has received wide publicity leading to a warning in the labeling of Chloromycetin. This re-emphasizes the point that no antibiotic is perfectly safe, and should not be used indiscriminately for trivial infections. When such drugs are used, it should be as a calculated risk, having weighed all the other factors involved.

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The Role of the Anesthesiologist In the Hospital and in the Community Today

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As WE visit the modern hospital and see the well-organized departments of surgery and anesthesiology with the multiple duties in patient care, teaching and research, it is rather difficult to envision the changes which have taken place in a short period of time. Only a relatively few years ago, many fully approved hospitals had no department or section of anesthesiology and, indeed, many university hospitals had no physician trained in anesthesiology. Frequently, a surgeon or internist was named nominal head of anesthesia in order to meet certain requirements set down by hospital accrediting bodies.

The technique of rendering a patient insensitive to pain was known as "etherizing," and the individuals assigned to perform this duty were called "etherizers." Many elderly patients and those suffering with severe cardiac, pulmonary and metabolic disorders were frequently denied the benefits of elective surgical treatment because they were regarded as "poor risks" for the indicated therapy. Evaluation and consultation advice by non-anesthesiologists was usually limited to such very pertinent but fairly obvious recommendations as "avoid hypoxia and maintain blood pressure." Deaths under anesthesia were not uncommon and were frequently ascribed to "status thymicolymphaticus," "heart attack" or "cerebral accident." The patient's oxygen requirements and the importance of carbon dioxide elimination were poorly understood. The advantages of an endotracheal airway were not fully appreciated and, when this technique was planned, the maneuver frequently required the consultation services of a peroral endoscopist. Intravenous fluid therapy and blood transfusion were commonly reserved as a last heroic measure, and pulmonary atelectasis and "ether pneumonia" not infrequently complicated and prolonged postoperative convalescence.



The Author
WILLIAM S. DERRICK, M.D.

During and immediately following the World War II years, a group of physicians, of necessity, were trained in anesthesiology and afterward found their way to the larger hospitals to initiate departments, sections or divisions of anesthesiology. These men soon found that their services were in demand, not only by their fellow officers who had returned from military duty, but also in time, by the older members of the hospital staff. In an effort to satisfy this demand and to prove the worth of their particular clinical discipline in hospital patient care, they labored long hours each day. At first, their activities were almost entirely confined to surgical anesthesia but in time their assistance was sought in the obstetrical ward, the recovery room, the blood bank, the medical units, emergency room and in short, in all clinical areas of the hospital.

This newly acquired recognition was most gratifying, but many difficulties beset the anesthesiologist of this era. Physical facilities, equipment, and personnel were almost universally inadequate. He was acutely aware of the need for educating more physicians in the specialty and for investigation toward improving agents and techniques for the care of patients under anesthesia. However, the necessary space, trained assistants and apparatus was not easy to acquire. Gradually, however, hospital administrators and boards of trustees recognized the new and pressing needs of the thoracic, cardiac, neurosurgical and other groups for help in anesthesia problems. Facilities were expanded and improved, more physicians were trained and anesthesia staffs were built to carry the increasing responsibilities. Anesthesiologists,

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as well as basic scientists, studied new anesthetic agents and improved methods of caring for the anesthetized patient. They contributed to and actively participated in the development of mechanical pulmonary ventilation, hypothermia, and extracorporeal circulation. They have adapted newer advances in the science of electronics to the monitoring of the narcotized patient.

Demands on the anesthesiologist's time and talents did not stop here. He has been invited to serve in other capacities in the hospital and, more recently, in his community as well. His posts have included appointments as senior officer of the hospital medical staff, county medical society president, national representative to medical insurance plans and consultant to the armed services and other federal agencies. This brings us to the anesthesiologist of today. What does he do, other than put people to sleep and reawaken them?

In addition to his clinical duties in the operating room, he is likely to have considerable responsibility in the recovery room or intensive care unit. He will be involved in obstetrical anesthesia and infant resuscitation. Problems in inhalation therapy and pain control may be referred to him, and he frequently is asked to supervise the blood transfusion service. If he is in a teaching hospital, he probably will provide undergraduate, graduate and postgraduate instruction in anesthesiology and will be engaged in some degree of investigation. He will undoubtedly serve on hospital committees concerned with residents' training, blood banking, research, pharmacy and perhaps the employee's credit union.

Outside the hospital, he may find a sizable portion of his spare time taken up with activities on a school board, county medical society, local, regional and national specialty societies and the church he attends. He may well be a member of the local Maternal Mortality Study Committee, the medical society Blood Bank Committee and an advisor to the American Association of Inhalation Therapists.

The number of physicians devoting full time to anesthesiology has increased from approximately 1,000 in 1941 to more than 5,000 today. There can be no question that, in the last twenty years, the role of the anesthesiologist has expanded both in the hospital and in the community. He has demonstrated a willingness to shoulder and share clinical and administrative burdens alongside his medical and surgical colleague. He has sought to pass on his knowledge to younger men and he has endeavored to improve his understanding of the anesthetic process. It seems clear that these efforts have been of benefit to the physician, surgeon and patient.

Anesthesiology has advanced rapidly in a relatively short period of time, but the need for more and better trained people still exists at the present and will be even greater in the future.

Many of the basic difficulties have been surmounted, and anesthesiologists are now generally practicing under the same conditions and in close cooperation with their medical and surgical associates. In some areas, economic inequities still exist, but here they will no doubt be resolved, as they have in the past, by the basic law of supply and demand. Exciting new electronic monitoring and computer developments promise to provide means for even better care of the anesthetized patient.

The day of the ether bottle and gauze mask is over. The anesthesiologist is no longer embarassed by a patient's asking, "Are you a doctor, an intern, or an etherizer?" or "Do you have to go to medical school to be an anesthesiologist?" The anesthesiologist has worked vigorously to make his place on the medical team, and it is, indeed, gratifying that his services are today welcomed by the physician, the surgeon, the hospital administrator, the community, and most important of all, the patient.

New Electronic Device Protects Soldier from Hearing Loss

The Army Medical Service has devised a new electronic item which protects the ears of armored soldiers from the high-intensity noise of gunfire.

Developed by the U. S. Army Medical Research Laboratory at Fort Knox, Kentucky, the mechanism is box-like in shape and is connected by wires to the gun and intercom system of the tank. Before the gun goes off, the device generates a little clicking noise in the gunner's earphones which immediately damps or contracts the eardrums.

To demonstrate the effectiveness of this device, researchers of the Psychology Division at the Army Medical Research Laboratory have devised a measure of hearing conservation termed "Temporary Threshold Shift Reduction (TTSR)." TTSR is a measure which expresses in decibels—a standard sound intensity unit—the difference in temporary hearing loss induced by gunfire sounds when the individual is and is not protected by the electronic device.

Although some persons do not evidence a need for the system, most individuals do, and a significant number experience a marked protection of their hearing when the electronic device is used. Temporary threshold shift reductions of from 1 to 60 decibels have been recorded in persons protected by the acoustic reflex device.

A Comprehensive Program Of Burn Therapy

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M. S. DeWeese, M.D.
H. K. Ransom, M.D.
Ann Arbor, Michigan

Part I

THE TREATMENT of the severely burned patient is a complex task, devoid of operative glamour, but presenting more potential problems in management than are found in most surgical disease. Despite the complexity of this injury, there may be a tendency to concentrate treatment on only one of the many problems at a given time. One comes to realize that this is not wholly effective, as multiple other physiologic derangements may become additive and ultimately destroy the patient. Thus, we see patients in whom the initial shock has been successfully combatted by a meticulous program of fluid therapy, who die later of sepsis which might have been better controlled had more vigorous measures been directed early to its prevention. A highly coordinated therapeutic regimen is, therefore, necessary if optimum care is to be provided the extensively burned patient. To implement this concept of treatment, a Burn Team has been established at the University of Michigan Medical Center. The goals of the team are to provide continuous and vigorous treatment of the individual patient throughout his entire course, including final rehabilitation, and to observe and study the many complex surgical problems created by thermal injury.

Three basic derangements follow the loss of an appreciable area of full-thickness skin. The first is that of massive fluid shifts resulting from the flow of extracellular fluid from the blood stream into the damaged tissues. The second is the loss of normal skin function in the burned areas, which creates a predisposition to serious complications. The third is that of functional and cosmetic deficits caused by contractures and scar formation.

These derangements constitute the basis for a classification of burn therapy which emphasizes the changes that take place during the three phases of injury and recovery. The first phase can be called the *Emergent Period* and involves the accurate appraisal and correction of the massive fluid shifts which occur and which produce shock. The duration of this period is from two to four days. The second phase encompasses the time required to resurface all areas of full-thickness skin loss and is known as the *Acute Period*. It is during this interval that many of the complications occur which contribute most heavily to the high mortality and morbidity rates in severely burned patients. This is the most difficult area of treatment. We consider that the patient is acutely, not chronically, ill until all areas of full-thickness skin loss are resurfaced. This may require many weeks or months. The *Reconstructive Period*, (third) is that phase during which functional repair, cosmetic reconstruction and social readjustment are accomplished, resulting in the best possible rehabilitation of the patient.

The remainder of *Part* I is concerned with the treatment of the patient during the *Emergent Period*. It is presented in outline form so that the plan of management will be readily available to those who may care to adapt it to their own use. *Part* II will deal with the *Acute Period*, and *Part* III will be devoted to *Reconstruction and Rehabilitation*. These will appear in subsequent issues of THE JOURNAL.

The Emergent Period

Ironically, the most satisfying phase of burn treatment today is often the Emergent Period. The advances in the knowledge of fluid therapy which have occurred during the past two decades have made it possible to successfully resuscitate most severely burned patients; formerly many deaths occurred during this time. However, other considerations pertaining to emergent care following trauma are equally important in providing a complete and successful therapeutic program.

When the severely burned patient arrives at the emergency room, he presents many problems in com-

From the Department of Surgery, University of Michigan Medical Center, and the St. Joseph Mercy Hospital. The study aiding in the formulation of this program was supported by U. S. Public Health Grant No. RG 5913.

mon with those encountered in patients with other types of injury. The burn is obvious but a quick and careful search must be made for other injuries as well and appropriate treatment of these instituted.

cell volume may be destroyed at the time of severe thermal injury, resulting in a relatively small blood loss initially due to the burn itself. The need for whole blood, therefore, is limited to approximately

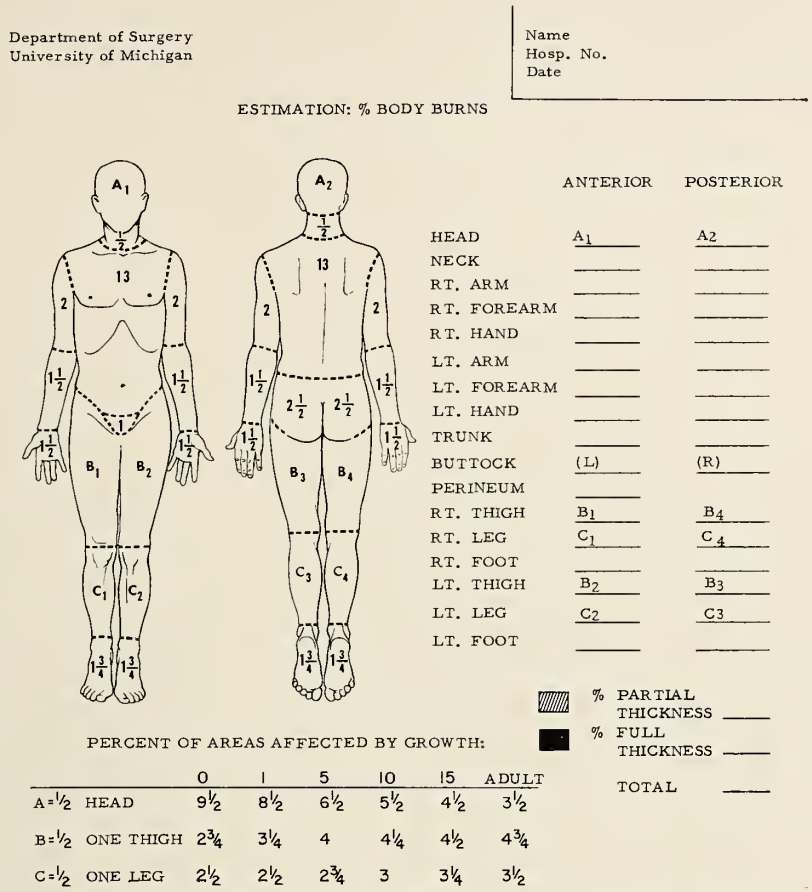


Fig. 1. This chart adopted from Lund and Browder,* provides for recording the distribution and the accurate determination of the per cent area burned.

*Lund, C. C. and Browder, N. C.: The Estimation of Area of Burns. Surgery, Gynecology and Obstetrics, 79:358, 1944.

First Aid

When administering first aid to any seriously injured patient, *bleeding, breathing,* and *shock* are paramount considerations, usually in the order presented. Aseptic technique is employed in all phases of management. All clothing and dressings must be removed for a satisfactory appraisal of the extent of the burn as well as of possible associated injuries.

1. *Bleeding.*—Hemorrhage may occur internally as well as externally due to trauma at the time of injury and should be carefully evaluated and treated as indicated. As much as 10 per cent of the red blood 500 ml. in a severely burned patient who does not have associated injuries.

2. *Breathing.*—The airway is more frequently a problem with the burned patient than is bleeding. The mouth and pharynx should be examined for foreign bodies and evidences of intraoral burn. The usual sequence of events is that burns of the head and neck which are seen early do not manifest difficulty in breathing. Subsequently, however, edema increases insidiously and within several hours the patient develops respiratory obstruction. We have found that a tracheotomy is eventually required in most patients with head and neck involvement and is best done im-

BURN TREATMENT - EMERGENT PERIOD SUMMARY

Name: Hospital No.: Age: Sex: Weight: Dx:

Month 19 •	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Notes
Temperature																									
Pulse																									
Respiration																									
Blood Pressure																									
Hb/Hemat																									
W.B.C.																									
$\frac{Na \mid K}{CO_2 \mid Cl}$																									
BUN																									
T.S.P. A/G																									
Urine specific gravity																									
Urine $\frac{Alb. \mid Glucose}{Micro}$																									
I Oral																									
N I.V.Glucose																									
T I.V.Saline																									
A I.V.Hartmann's																									
K Whole Blood																									
E Protein																									
TOTAL																									
O U Urine																									
T P Emesis or G.I.Suction																									
U T TOTAL																									

FORM NO. 8081

DEPARTMENT OF SURGERY-THE UNIVERSITY OF MICHIGAN

Fig. 2. A complete hourly summary of the patient's course is readily available on this chart at all times. The chart is placed in full view on the wall near the patient's bed. Later, it can be folded to fit on the standard hospital record.

mediately in the emergency room. Positive pressure oxygen may be helpful in combatting pulmonary edema due to tracheo-bronchial injury. The use of oxygen should be considered in all cases.

3. *Shock.*—Shock may be neurogenic at first but is due later to the extensive and rapid fluid shifts. Analgesics may be required if the patient is in pain and should always be given intravenously. Subcutaneous or intramuscular injections pool locally if the patient is hypotensive and then release suddenly when the systemic circulation returns to adequate function, resulting in dangerously high blood levels from accumulated doses. The secondary cause of shock is hypovolemia, resulting from the loss of serum to the extracellular spaces. The fluid therapy program below is designed to control this problem.

After the immediate emergent matters have been attended to and a preliminary evaluation has been made, time should be taken to reassure the patient and explain the problems to the family.

Fluid Therapy

1. *Indications.*—Intravenous fluids should be started immediately for all patients with burns greater than 15 per cent of body surface. Patients with smaller burns are observed initially and parenteral fluids given only as they are needed. Oral fluids will suffice in patients with smaller burns.

2. *Intravenous Catheters.* — Plastic intravenous catheters are used in all patients requiring immediate intravenous fluid therapy. Femoral or brachial cutdowns are employed with placement of 16- or 18-guage plastic catheters into the deep venous system. When possible, percutaneous plastic catheters should be employed to lessen the hazards of infection. In addition to this, a second intravenous infusion is started in another extremity by the routine method, enabling the administration of colloid and crystalloid solutions simultaneously during the first few days. It is important to change the sites of the deep venous catheters after six days to avoid thrombophlebitis.

3. *Estimation of Per Cent of Body Burn.*—A chart is provided to facilitate the estimation of the per cent of body surface which has been burned (Fig. 1). It is not necessary to distinguish full thickness from partial thickness skin loss at this time. In general, areas of full-thickness loss will be anesthetic, may be charred and will be dry. Areas of partial-thickness loss will be painful and may have blisters. The chart takes into account the relative changes in surface area of parts of the body which accompany growth.

4. *Calculation of Fluid Requirements.*—There are several formulas available to calculate the approximate fluid requirements. *It must be emphasized that a formula provides only a working start for the administration of fluid and the patient's response to therapy is the most important factor in determining ultimate requirements.* Evan's formula provides 1 ml. of colloid for each per cent of body burn, times the weight of the patient in kilograms. An equal amount of electrolyte solution is also administered and the normal daily water requirement for urine and insensible loss is added. For example, a 70-kilogram man sustains a 30 per cent body burn. His intravenous fluid requirements for the first 24-hour period would be as follows:

colloid	70 X 30 = 2100 ml.
electrolyte	70 X 30 = 2100 ml.
5% glucose	1500 ml.
TOTAL	5700 ml.

One-half the total volume is given in the first eight hours and the remaining one-half is administered in the next 16 hours. One-half of the amount administered during the first 24 hours is usually required during the second 24-hour period. Colloid is considered to be whole blood, plasma, dextran and 5 per cent serum albumin. Electrolyte solutions used are Hartmann's (lactated Ringer's) solution. Water is administered in the form of a 5 per cent glucose solution.

It should be noted that when determining fluid requirements, total fluid replacement should not exceed that volume which is calculated on the basis of a burn involving 50 per cent of the body surface. Burns greater than 50 per cent are considered to be 50 per cent and, here again, the patient's response to therapy is exceedingly important.

5. *Guides to Administration of Fluids.*—

(a) *Intake.*—Severely burned patients are not permitted oral intake during the first 24 hours to avoid emesis and aspiration. As stated, one intravenous route is used for the administration of colloid and the other for electrolyte solutions. The maximum whole blood given to the adult is 1,000 ml.; 500 ml. is sufficient in most cases. The remainder of the colloid consists of plasma, serum albumin and/or dextran. The first colloid administered is 500 ml. of plasma or albumin and this may be followed by whole blood. The concentrated serum albumin can be diluted with either saline or glucose and, therefore, has the advantage of pro-

viding more flexibility of fluid administration. Studies are in progress to determine the relative effectiveness and dosage of this colloid solution.

(b) *Output.*—A urinary catheter is placed in all seriously burned patients on admission. An output of 20 to 60 milliliters per hour is desirable. The catheter can be clamped and drained either once an hour or once every two hours as indicated. The specific gravity should be obtained with each measurement and corrections must be made for high concentration of albumin when calculating the specific gravity.

(c) *Hemoglobin and Hematocrits.*—Both the hemoglobin and hematocrit values are utilized to determine hemoconcentration. The determinations are repeated every two hours during the first day and as often as indicated thereafter, usually at eight-hour intervals. The hematocrit will rise in most cases. The patient response as measured by urine output, vital signs, and state of consciousness are more important considerations than the hematocrit level. Although the latter does not serve as a specific parameter in prescribing fluid replacement, it does serve as a guide to the progress of therapy. With adequate fluid replacement, the high hematocrit level will remain constant and then return to normal.

(d) *Blood Chemistries.*—Baseline chemical determinations are important in evaluating the patient's state of health on admission and also to provide a measure for changes due to therapy. Serum sodium, potassium, carbon dioxide concentration, blood urea nitrogen, and protein are obtained on admission and are repeated each day for the first three days.

(e) *Summary Charting.*—As mentioned previously, a predetermined formula serves only as a guide in fluid therapy. The patient's response, as judged by urinary output and vital signs, is the final determining factor in the administration of fluid during the emergent phase. It is therefore mandatory to evaluate the patient's progress at intervals no greater than every two to four hours, re-writing fluid orders as often as necessary. A special summary chart has been developed (Fig. 2) to aid in coordinating therapy. This chart permits the accurate recording each hour of the many observations which have proved useful in evaluating the patient's course. Each chart permits hourly recordings for a 24-hour period. The patient's course is advantageously followed for the first three or four days on these charts.

(f) *Special Considerations.* — When pulmonary damage is suspected, fluid intake is limited to that volume which will provide the lowest acceptable urinary output (20 cc. per hour in the adult) because of the hazard of producing pulmonary edema. The past medical history should be reviewed for other diseases which might influence fluid therapy such as organic heart disease and primary lung diseases.

Early Miscellaneous Supportive Treatment

1. *Anti-Microbial Therapy.*—

(a) *Tetanus Toxoid or Antitoxin.*—These are administered routinely, the choice being dependent upon previous immunizations.

(b) *Antibiotics.*—Prophylactic antibiotic therapy is started in all patients on admission. The dosage which we are currently advising is as follows: Penicillin—5 million units (intravenously) daily and Chloromycetin—1 gm. (intravenously) daily. The patient is questioned about allergy to these or other medications. The prophylactic use of antibiotics in burned patients remains a controversial issue. It is our present belief that early infections can be limited by their use.

2. *X-Rays.*—

(a) A chest radiograph is routinely obtained on all patients on admission.

(b) Other x-ray examinations are performed as indicated.

3. *Photographs.*—It is helpful to record all injuries pictorially when possible and we obtain anterior and posterior views of the burned areas as soon as conditions permit.

4. *Wound Care.*—When the patient's general condition has stabilized, the wound is gently washed with a surgical soap and water attempting only minimal debridement of dirt and loose tissue and leaving the intact blisters undisturbed. This can usually be accomplished in the patient's room. Analgesics may be given as indicated but are rarely required in severe burns. General anesthesia is seldom necessary and should be avoided if possible. The Foster or Strykler frame is employed if extensive burns are present. In general, burns of the hands and feet are covered by occlusive dressings while those elsewhere on the body are managed by the open method. Sterile linen is used and isolation technique is required.

Physical Examination

As complete a physical examination as is possible should be done on admission. A thorough knowledge of the patient's past medical history is necessary before undertaking extensive fluid therapy. The history is obtained from the relatives in the emergency room and again from the patient when he is able to respond to questioning. Usually, the patient can give a history within the first few hours but not later, as the increasing edema incapacitates him.

Careful management of the patient during this phase will be rewarded by the onset of diuresis during the third to the fourth day, signifying the successful termination of the Emergent Period. In case the full-thickness loss is not great, the diuresis will begin earlier. Homeostasis has been restored temporarily. The removal of the burn eschar and resurfacing of the area with split-thickness skin is the next order of business. The prevention and treatment of complications during the ensuing Acute Period becomes a matter of extreme importance for survival.

Personal Feud Obscures Problem

Whether or not the American Medical Association opposes Social Security now, or has opposed it at any time, is totally beside the point in the controversy over the King-Anderson bill to offer a form of health care for the elderly. Apparently stung by criticism from the AMA, President Kennedy has now challenged the association to set the record straight regarding its position on Social Security. He has come up with several statements from years past in which certain leaders in the medical profession had attacked Social Security.

Mr. Kennedy obviously is attempting to discredit the AMA opposition to the King-Anderson bill, since it would—if enacted—be administered through the Social Security Administration. By causing it to appear that the AMA opposes Social Security, per se, the President is clearly hoping to lay down a smoke-screen around the basic issue in the old-age health care argument.

It really would make no difference in the hoax that is being perpetrated on the people—old and young—if the plan were to be administered by the State Department, the Department of Defense, or the White House, itself. The program still would be inadequate and entirely too expensive for the benefits offered, particularly when compared with many private medical insurance programs.

The entire country would be the better off if Mr. Kennedy and the AMA would conclude their personal feud forthwith. If Mr. Kennedy would stop playing politics with the very serious problem of health care for the elderly, the matter might be brought into a much clearer perspective. And, if the AMA would cease its outcry against encroachment upon professionalism—an extremely unsound argument at this time because the King-Anderson bill does not affect physicians and surgeons—and concentrate on exposing the inequities of the plan as regards the aged, the matter might be better understood.

The running debate between the two factions serves no useful purpose. What really is needed is more lucidly logical discussion of the problem based upon what the King-Anderson bill proposes to accomplish and the reasons why it does not, and cannot, attain its objectives.—*Enquirer and News* (June 8) 1962.

Cervical Spine Sprain and Its Related Syndromes

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CERVICAL spine sprain is recognized with increasing frequency as a common trauma in automobile accidents, although, it is not uncommon in industrial mishaps. To the layman this injury is known descriptively by its etiological term, "whiplash." The symptom picture requires a clear conception of the functional anatomy of the cervical spine and the related structures. Its management is fraught with difficulties both for the physician and the patient unless careful survey for supporting signs is carried through routinely, with the anatomy in mind. Stated yet another way an unbiased approach to the complaints of each patient is essential to proper evaluation. The complex relationship between the musculo-skeletal, neuromuscular and neurovascular systems can frustrate the unwary physician and he may tag his patient with a psychiatric diagnosis, because of apparently bizarre symptoms.

The management of the cervical spine sprain is readily divided into three phases. In the acute phase pain due to muscular spasm of the neck and shoulders with restriction of range of motion in the cervical spine and one or both upper extremities is present. Other symptoms may include blackouts, dizziness, vertigo, double vision and even tinnitus. These symptoms implicate the autonomic system with associated vasospasm and pain through the carotid plexus and including the vertebral and basilar arteries with terminal branches to the labyrinthe. At this time, x-ray studies including flexion views will reveal a straightening of the lordotic curve, indicative of extensor muscle spasm. Treatment consists of immobilization with a soft cervical collar, analgesics, a listening ear, heat and massage and as the spasm subsides, range of motion exercises. These signs and symptoms recede in a matter of several days to three or four weeks.

The sub-acute phase of cervical spine sprain is characterized by radicular type pain and evidence of a periarthritis of the shoulder rotator cuff or by the persistence of occipital and greater auricular nerve type headaches. The range of motion in the cervical spine will have improved, but from this point may show a consistent, repeated and demonstrable deficit. In addition, localized tenderness over one or two of the cervical roots can be found on repeated examination and palpation. These localizing signs should be searched for through the anterior cervical triangles, as well as posteriorly. The C-6 root is most commonly involved because it is at this point that the major degree of bending normally occurs.

During the sub-acute phase, deep tendon reflexes may show changes as a result of progressive Wallerian degeneration and the manual muscle test may show segmental weakness. These findings indicate nerve root compression. In the presence of such findings electromyography is a useful diagnostic tool. With subsequent healing of the ligamentous sprain by fibrosis and with adequate, intermittent cervical traction, the picture of nerve root compression usually is reversed and there remains only the localized residual tenderness over the healed area. The majority of patients are emotionally stable, so that a simple and concise explanation should be given regarding the pathology. That intermittent aching and stiffness may be anticipated particularly with emotional stress and weather changes should be made clear. Explanations such as these reduce the residual anxiety to limits which the patient can handle.

It is precisely those patients from whom explanation is withheld who are likely to escape the management of the physician into the hands of cultists, for long drawn out physical medicine procedures or numerous costly and fruitless diagnostic efforts. These are the patients who develop a real anxiety neurosis. The few who are fortunate may eventually receive adequate psychiatric evaluation and treatment. Failure to deal realistically regarding the usual residuals at the end of the sub-acute phase of this syndrome results in litigation as a further sequel.

There is a chronic phase of cervical spine sprain with persistence of muscular weakness, tendon reflex changes, severe pain and other symptoms of nerve root compression with or without demonstrable x-ray changes. These are the patients whose injury can be

severe enough to cause a rupture of an intervertebral disc, occasionally even with evidence of cord compression. Myelography is indicated with surgical excision of the prolapsed disc and decompression of the involved nerve root or cord.

There are certain pitfalls prevalent in the diagnostic evaluation of the syndrome which may confuse the inexperienced physician. These do occur with enough frequency to warrant discussion.

Sympathetic reflex dystrophy, with edema, swelling and pain in the upper extremity, far in excess of the normal, may develop very early or at any time. Calcific bursitis may develop in association with the syndrome, in the subdeltoid, subacromial or over the epicondylar area. These calcifications can arise within a forty-eight hour period and may have to be treated surgically. The management of a reflex sympathetic dystrophy consists of a diagnostic trial of one of the autonomic inhibitors such as Etamon®. Repeated stellate ganglion blocks, will often arrest the dystrophic picture. Sometimes a thoracic sympathectomy is indicated following vasography and plethysmography, for diagnostic evaluation. With the subsidence of the pain and the swelling, then and only then, should physical therapeutic measures be initiated to restore range of motion in the hand, arm and shoulder. Physical treatment for a reflex sympathetic dystrophy is contra-indicated during the acute phase; narcotics are not. Definitive measures, as mentioned above, should be instituted as soon as the diagnosis of a dystrophy is made.

Another syndrome which occurs with relative frequency following a cervical sprain is the so-called anterior scalene syndrome. A history of paresthesia, numbness and tingling of either upper extremity, particularly through the subacute phase, calls for an investigation of possible compression by the scalenous anticus muscle of the subclavian artery or compression by the muscle of a portion of the brachial plexus. Continuing spasm of the anterior scalene muscle with eventual shortening and contracture is the etiology, in these instances. The treatment is surgical section of the offending muscle, after myelography, to rule out nerve root compression, and vasography, to rule out traumatic thrombosis of the blood vessels, have been performed.

An uncommon syndrome which must be considered in the differential discussion of possibilities, is the one which presents a symptomatic picture of dysphagia. This symptom is usually dismissed as the globus hystericus of an anxiety state. A barium swallow will differentiate the two, often to the surprise of the physician and the relief of the patient. It, too, is probably caused by autonomic imbalance and is distressing to the physician and the patient until recognized and treated with reassurance, tranquilizers and occasional bougienage. Notwithstanding, the majority of patients who do present swallowing problems are hysterical. Occasionally late, the brain stem itself may be involved.

Finally, in the face of persistent vertigo nystagmus and rombergism, labyrinthine tests and audiometrics may reveal varying degrees of eighth nerve deficit. It is unfortunate that this is very rarely considered. On occasion, it may eventually be recognized when all other possibilities have been exhausted.

In summary, a cervical sprain divides readily into three phases, namely, the acute, the sub-acute and the chronic. Some of the common associated conditions with their diagnosis and treatment are briefly discussed. The role of the autonomic nervous system is stressed, since it usually is not recognized. Further research is needed in these areas.

70,000 Burn Injuries

Of all the personal-accident hazards in the modern world, the unchallenged champs continue to be heat and fire.

Doctors at the University of Michigan Medical Center estimate that 70,000 persons are hospitalized each year with severe burns. About 6,000 are killed. Uncounted millions suffer various minor degrees of pain, discomfort and temporary incapacity. U-M specialists say 60 per cent of burn injuries occur in or near the home. About 20 per cent are incurred at work. Roughly half of all victims are children under 12.

Realistic Approach to Medico-legal Problems

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IN THIS DAY of high speed, multiple injuries and widespread knowledge of the rights of the individual, doctors are finding more and more that they are called upon to render medico-legal aid. It is common knowledge that many physicians shy away from any contact with the courts; yet, this is a part of our duty to our patients and to the community. Where else can the Legal Fraternity turn for medical opinion other than the Medical Fraternity. If this is not freely and properly given, the decisions in the courts will be erroneous and only lead to higher and unjust awards. Such will serve only the avaricious and tend to greater and unjust expense.

For this reason I give the following suggestions to the reticent, or inexperienced physician in his association with the law.

Duty of the Doctor to His Patient

The best medical care, of course, must be given.

One should not tend, by conversation, to magnify the situation or the possible after-effects of trauma. A simple and factual explanation is due and sufficient. Attempts to bring into the picture highly remote and improbable sequellae only serve to exaggerate the patient's apprehension and retard his response to remedial care. It also engenders a false conception of possible monetary recovery, sometimes completely out of relation to reality.

Duty of the Doctor to Patient's Legal Representative

The doctor should feel a responsibility to his patient beyond the simple medical care. He should be prepared to render a concise and simply worded report covering the diagnosis, and the necessary medical and surgical care that was rendered in order to effect recovery. He should give a report of the patient's general condition at the end of treatment. He should give a statement relative to prognosis. In this he should be factual, as far as possible, and should render his opinion regarding the probable complications or permanency of residual. Here, due consideration again should be given to reasonable medical probability and not ethereal and highly remote possibilities. The saying is that "anything can happen to the human body." This may be so, but to reach out into the unknown or improbable only serves to "fog" the issue and magnify the expectations of the patient without warrant. Remember that the plaintiff's attorney must rely on the physician's report in order to estimate for his client the amount of damages due.

If the report leads him astray, a disservice will have been done to both patient and attorney. Under such circumstances, and in the event of litigation, highly inequitable findings will be made in the court to the detriment of one or the other of the litigants. This is to say nothing of the waste of time of the court. Obviously, a just fee should be charged for the physician's report and conferences.

Duty of the Doctor in Court

To give correct testimony in court requires no special training. This should not be considered a specialty. True enough, one who has been so exposed a number of times, perhaps enters the court room with greater equanimity than the neophyte. This, however, should not disturb the initiate, if he is properly prepared.

The doctor appearing in court should be well prepared in the knowledge of all aspects of his case. He should be well advised by plaintiff's attorney relative to the questions to be given and the aim to be achieved. With previous brief conference, the attorney will know exactly what to expect in the way of testimony and his witness will not be asked the unexpected. Do not be led into the medical fields other than your own! You may give an answer in other specialties—but not as a specialist—but as a doctor of medicine, and you should so state. Thus you will not be "led down the primrose path" to almost certain embarrassment. Be honest, sincere, factual and be prepared to give logical reasons to substantiate your opinions. Above all, do not try to be anything but a doctor of medicine—not a doctor of law. You are not trying the case; you are giving

reasonable medical opinion. Again, I suggest that you try neither to enlarge nor minimize the points involved. Do not become emotionally upset. Occasionally, an attorney will ask questions that seem to reflect on your ability, judgment or honesty. This is only "by-play" for impressing the jury. It is not personal.

If you have followed the above admonitions, you will be on firm ground, and such at attack by opposing counsel may well "backfire." People just don't like to hear an honest man berated.

Now, a few comments should be made in respect to those doctors who are called upon to examine an individual in order to evaluate the residuals of injury and to render a report of findings, opinion of permanency, and prognosis. Such a situation should call for the best of your abilities and attentions. Once again, you must realize that fair medical appraisal is imperative. You must study the case well and give the attorney as correct an appraisal as possible. No thought should be given to which attorney—plaintiff or defense—referred the patient for such examination. It is understandable that such patients are likely or almost prone to exaggerate their symptoms. It is logical, to a certain extent, that all difficulties of health occurring subsequent to an injury are believed to be the result of such injury. This is frequently not so, as you well know. You must analyze and evaluate the facts. You must again consider reasonable medical probability. From a muscle, ligamentous bone and joint standpoint, I believe that after a reasonable period of time, nature and/or medical care will bring about recovery, unless there is underlying organic difficulty. If this is so, a careful examination will find some objective signs to substantiate the subjective complaints. Thus, subjective symptoms alone must be viewed with great care, and you must consider the length of elapsed time.

In court, as the evaluating physician, you must be doubly sure of your diagnosis, your reasons for arriving at same, and you must be prepared for rigorous cross-examination, as outlined before in this presentation.

Use and Abuse of Antibiotics in Surgical Patients

(Continued from Page 858)

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Labor Pains

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IF "LABOR" can exploit the government, what chance have people against it? The reward for dawdling on the job is overtime. Too, a strike is detrimental to the nation as well as to the community. It is a political privilege granted to a group which—without competition—can impose a contract by duress.

While individual enterprise is a relatively recent culture in man's society, minor flaws are bound to crop up. But one doesn't kill a good dog because it has fleas. It has been only in the last century and chiefly in this country that 3 per cent of the human race has ever enjoyed the highest standard of living and medical care, due to individual enterprise. For it is only in recent times that any man with new ideas has not been repressed by socialism or state-ism.

The primitive sterilizing communal culture of the aborigines hasn't changed in centuries. Despite the fact that communal living has existed even among insects, the retrogressive socialists claim their philosophy to be an ideal solution for man's progress.

The average individual is not aware that a labor group is a collective organization which is devoted to the security of mediocrity, opposed to individual enterprise, and hostile to any member showing superior ability, industriousness and ambition.

When one realizes a farmer must make his money from a harvest do for a whole year, why can't the working man also manage his money? Didn't the Bible indicate that man's lot consisted of seven lean years as well as seven fat years?

When we abandon the incentive system, shouldn't Russia, with it, get ahead of us? When to our countrymen we can't sell "free enterprise" that made our country great, how can we stop communism in other countries?

Isn't socialism a sob-sister philosophy that rationalizes confiscation or stealing from the capable as a charitable act in that it benefits those who are lacking in money-management, un-enterprising, incapable, or who are unfortunate? It doesn't differentiate between wealth acquired by political privilege and wealth acquired by industriousness, frugality, and tedious hours. Disavowing the Eighth and the Tenth Commandments of the Bible, socialism finds willing recipients.

Won't Nature's "Law of the Survival of the Fittest" exact its just due from a society that wholeheartedly supports mediocrity by penalizing the gifted, the enterprising and the industrious?

I inform my acquaintances by oversimplifying that economy is balanced when one receives $1.00 worth of service or goods for $1.00 spent. That "higher wages and shorter hours" means that a manufacturer must pay $1.00 for 50c worth of labor's time, or of goods produced. To make a profit, the manufacturer must charge $1.05. But, the consumer receives only 50c value. With the same amount of money, the manufacturer, paying twice as much, can afford fewer workers. This, therefore, causes inflation, forces a lower standard of living, and fewer jobs, since a lot of money buys less. Inflation must always be followed by depression, due to dollar value loss. This belief of "higher wages and shorter hours" is convertible to the economic fallacy of "something for nothing."

In 1939, hospitals paid nurses and technicians $75.00 a month, on a 72-hour-week basis. Other employees received even less. Since the war, to prevent loss of personnel to industry, the hospitals with union stimulus in Detroit had to adopt a 40-hour week. Now a 24-hour day requires three nurses with total pay of $54.00. In 1939, doctors' x-ray equipment cost $6,000. Today, that same equipment costs $25,000. This accounts, in part, for the 360 per cent rise in hospital costs. A hospital provides—primarily—nursing care. In addition, it furnishes facilities for doctors' services that are less readily done in his office. For this reason, people confuse hospital care with medical service, and lump them together. Nevertheless, on the average, the doctors' fees have increased only 90 per cent; whereas on the average, labor wages have increased 360 per cent since 1939. Labor is responsible for increased hospital cost, but complains about increased Blue Cross rates, even though increased benefits are included.

Since the non-automatized hospital labor force is twice as large as in the average factory, any general wage increase automatically doubles the hospital costs.

Now, labor with the "higher wages and shorter hours" policy has the audacity to claim to be also an authority on medical care, when union-dominated

areas have the highest unemployment rate. With ample time, the union still cannot prove that this policy does promote prosperity, improve the standard of living, or increase employment. If the economic theory of labor is so good, why does the union have to run to the government to be bailed out? To make up for lost wages, lost jobs, and other higher hospital costs, the union demands the government to tax business more and to socialize medicine. This has forced the unions to become political organizations.

Isn't social security basically operated on chain letter principle? The people at the apex of the pyramid contribute the least in proportion to benefits derived. As more people are included, greater revenue must be collected. Eventually, a worker with a family must earn at least $100.00 or more per month in taxes to support the generation ahead of him . . . at which time the Treasury should run out of printing paper. Anyway, it is said that in the 1970's, the longer-lived oldsters will represent 25 per cent of the population. That means 30 per cent will be workers; the remainder, the family.

Now, what is more important to the country's future? The family of the worker? The oldster? For, not all oldsters are improvident, unenterprising, unhealthy or unfortunate.

Socialism may be satisfactory for the ant, but its culture has not changed in millions of years. It is designed for security only. Any ant that is different is destroyed. Similarity exists in communism. Man is temperamentally unsuited for socialism, which lowers the best to the lowest level. Socialism is a retrogressive form of culture in human society. It is a moral fallacy to believe any man will work harder to support some other man's family rather than his own. No normal person, including the Soviet farmer, subscribes to this belief.

Socialism delegates authority to bureaucrats to control medicine, agriculture, industry, education, and so on. Yet, these officials are too remote from the local scene to make adequate decisions for the best economy, as witness the USSR or East Germany. In this instance, man exists only for the bureaucrats, and so, without dignity. This is contrary to the American creed.

Individual enterprise or incentive is responsible for man's elevation from an animal to a civilized human being. All major progress in man's culture is the result of individual effort—though not always appreciated by ordinary men. For defense, group effort is desirable; but for progress individual enterprise with responsibility is essential.

"Free enterprise" has never reached the extremes of ruthlessness of bureaucracies. Communism and Nazism murdered millions to alter social values.

It is now apparent that the government, as well as labor, represents the negativistic side of our economy. Since government-created jobs must come from taxes, and the government never gives back as much as it takes, therefore, excessive taxes can destroy capital necessary for business.

If Congress can raise the minimum wage rate, why can't it rather lower the higher wage scale at least $1.00 per hour? Raising the minimum wage is like treating a person with the hair of the dog that bit him. The reverse would make our articles competitive. Not only would it be a more reasonable stimulus to our economy, but it would make the group responsible for the poor economic climate, contribute. Think of the benefits of lower prices to the pensioners.

A union is now a political and militant organization that desires control of management, makes excessive demands on the equity of the investor, and insists upon freedom from responsibility.

Why must a labor union think it should direct management and control the economy? It cannot create industries or jobs. But it does destroy the industries by raising the cost of articles produced, or by diversion of customers. Whenever the economy boomed, labor called strikes. The union lacks the initiative to stimulate prosperity, but has the capacity to cripple or destroy. Its success depends on threat even at the expense of the community. What is good for labor is not necessarily good for all Americans. Even the Soviet abandoned the policy of permitting workers to direct management.

The middle income group that the union and its socio-economic friends envies and resents, is the investment potential of the United States. If destroyed, this country would be another East Germany. By withholding or investing the earnings or savings, the investor determines whether the industries or jobs are created. The investment pays for labor, material and machinery. Thus, he rightfully expects his share from his equity. Whether machinery or labor performs more economically is the investor's concern. He did not invest just to create jobs. Adequate earnings encourage the investor to further invest or spend. By attacking management's salaries, labor successfully picks the investor's pocket.

By ignoring the economic law of diminishing returns, the union has stifled prosperity. For less profit means fewer jobs; higher wages, fewer jobs. Labor expects the income of up-to-date doctors and

scientists, yet at 45 doesn't have to know more than at 25 to lay a brick. Labor is the negativistic side of our business climate. It demands higher wages and shorter hours, yet labor wants to stick the government and medicine with pensioners caught in a price squeeze. Unions insist on progressive wage increases, yet impudently disclaim financial responsibility for the plight of the pensioner.

Why can't the union contribute from its lush funds to help solve the problems it helps create? Labor makes great demands on the community, yet wants its members to be relatively tax-free.

Michigan and the country are suffering from labor pains.

Labor cannot create jobs or industries, but it wants to control the economy, management, and government.

Labor wants a greater share of the profits, yet has the least equity in industry.

Labor elects to operate indifferently, but demands to be preferred over machinery by the investor.

Labor, with government support, would dictate our economy, yet its basic philosophy of "higher wages and shorter hours" translates into "something for nothing."

Labor insists on progressive wage increases, but repudiates responsibility for the plight of pensioners.

Labor demands space-age medicine at "horse-and-buggy" prices to be subsidized by government, which always gives back much less than it takes.

Labor insists on "higher wages and shorter hours," but wants to stick the government and medicine with pensioners caught in a price squeeze.

Labor caused higher operating costs of hospitals, yet wants to socialize the doctor whose fee increase is must less than labor's gain.

Labor expects the same income as an up-to-date doctor, but at 45 doesn't have to know more than at 25 to lay a brick.

Labor, with threats, can sabotage prosperity, yet wants the public to believe what is good for labor is good for all Americans.

Labor makes a greater demand on the community, yet wants to be relatively tax-free.

Michigan and the country are suffering from labor pains.

Cites Importance of "Real" Work Therapy

Doctors working in areas of occupational therapy are urged to give their patients "real" work in the hospital, instead of just keeping them aimlessly occupied with handicraft exercises.

"The dignity of labor and the satisfactions of realistic and meaningful accomplishment are highly gratifying and therapeutic to the patient," declared David Ethridge, supervisor of work therapy at the Northville State Hospital.

Work therapy for every patient is seen as an integral part of occupational therapy treatment at Northville, Ethridge told a recent meeting of the Michigan Occupational Therapy Association at Michigan State University.

Patients at Northville are assigned to work therapy by the Occupational Therapy Department, via an assigning prescription from the doctor, he explained. The patient is initially evaluated in the OT clinic soon after admission and, if considered ready, is put to work. If not, Ethridge said, the patient is retained in the OT clinic or intensive treatment units until sufficiently improved.

The speaker pointed out that, in every hospital, there is a great range of unskilled and semi-skilled occupations suitable for handicapped patients. At Northville, he noted, there are 205 different kinds of work assignments, ranging from ward janitors, pan washers and cigarette rollers to clerk-typists and snack bar managers.

What ETV Can Do for the Doctor

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EVERY DAY the Doctor of Medicine is faced with the question of how he can keep pace with the advancements in medical science. Sixty pounds of literature may descend on him each week, but it is of no avail when time is not available to digest it. The press of his practice prevents the use of university facilities except perhaps for the sporadic attendance of brief seminars. Even here, it is well to note that the faculties of the universities find it impossible to keep pace with the research of private business firms and public foundations in the medical sciences. No single answer will be found to solve the problem of the growth in time lag between medical knowledge and medical research for the physician, but recent research in ETV (educational television) does offer some hope for retarding its growth.

A large number of carefully controlled studies indicate that educational television holds some superior advantages as a method of conveying information and education over other mass media and individual instruction techniques. One group of studies suggests that the use of certain instructional methods on television can make this medium more effective than other instructional means. The use of demonstrations, supplemental and supporting literature, interviews and discussions as interest and attention-getters, lectures for maximum transfer of information, and the placing of more significant information into the final minutes of a program can have the desired effect of presenting the information on television in a way which results in the viewer receiving and remembering more information than he would if he were sitting in a conference or in a lecture room and listening to the same materials.[1,4,7]

But the advantages of ETV do not end here. If educational television is to result in better learning, then production techniques must be carefully examined. For example, in a study of the use of close-up camera techniques, television was found to be quite superior to other media of instruction where detail in demonstration is important to adequate understanding. This is particularly true in the manipulation of small instruments, small controls on larger pieces of equipment, and other instances in which the viewing of small details in the demonstration is important if an adequate operating knowledge is to be obtained.[5] Thus, the demonstration of new surgical procedures, for example, should result in considerably more efficient learning for a large group of observers.

Finally, one study incorporated into its television experiment the use of improved instruction techniques, high quality standards of production, proper use of camera techniques such as superimposures and close-ups, and proper attention to video and audio quality. The results of the study statistically indicated that *this improved television instruction was superior to regular classroom instruction in more than 999 cases out of 1,000.* This same study revealed that when these improved methods were employed the same amount of learning achieved by normal classroom techniques could be achieved by televised instruction after a thirty per cent reduction in the time permitted for the instruction. This indicates that in instructional situations, where these techniques are effective, thirty minutes of the improved television instruction is roughly equivalent to a regular forty-minute class period.[2]

In terms of cost, the lesson here is almost self-evident, for the physician who would have to leave his practice, travel, and pay tuition; the cost of normal classroom instruction, even in condensed seminars, is excessive. In a study set in the more economical environment of a college campus, it was discovered that the cost of regular classroom instruction exceeded the cost of televised instruction by nearly 90 per cent.[6] Closed-circuit television, scheduled at convenient times during the week, could provide the physician with a convenient and ready source of information

Abstracted from a comprehensive survey of the research literature, conducted for the American Academy of General Practice by the Author. The original study surveyed over 150 research studies, from which the following were deemed most significant.

and education. ETV, given the above conditions, can produce desired information on recent medical research findings more rapidly and more readily than other means of acquiring information. It offers an economical source of information which can provide valuable assistance in keeping the time lag between medical research and medical practice as short as possible.

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Biography

Mr. Joseph C. Rhea was a Management Intern with the Michigan Association of the Professions and an Instructor of Speech at Michigan State University. Prior to his association with the faculty of Michigan State, he was an Instructor of Speech at the University of Kansas, General Motors Institute, and Flint Community College. He holds a B.A. degree and a M.A. degree from Michigan State University, and is presently working on a Ph.D. degree in Speech at Michigan State, specializing in problems of association communication and management.

Alcohol or Poison Detection

A quick, simple and reliable test for detecting alcohol or certain poisons in the body has been developed by a University of Michigan doctor and a researcher at Dow Chemical Company, Midland.

The patient blows up a plastic bag about the size of a pillowcase, and an infrared spectrometer does the rest. It pinpoints the exact chemical or toxic drug, and the approximate amount and time of consumption.

The test is possible because of the properties of the Saran (plastic made by Dow) bag. Most toxic compounds do not react with the material or cling to its surface. It retains the breath sample well enough to allow storage for several hours prior to analysis.

Richard D. Stewart, M.D., of the U-M Department Internal Medicine, and Duncan S. Erley of Dow's Chemical Physics Research Laboratory, report that "this one test can effectively detect many different compounds."

"Each organic compound has a specific infrared fingerprint," Dr. Stewart explains. When the bagged air is analyzed on the infrared spectrometer, this fingerprint identifies the specific alcohol, ether, gas, ketone, or halogenated hydrocarbon.

Dr. Stewart and Prof. Edward Boettner, U-M physicist, recently used this test to detect the presence of carbon tetrachloride in the breath of a patient three weeks after the chemical had been swallowed.

Dr. Stewart says the test should prove valuable to law agencies investigating drunkenness, actual or attempted suicides, and other poisonings.

Ninety-Seventh Annual Session

In September, the Michigan State Medical Society will hold its 97th Annual Session in Detroit. The June Number of THE JOURNAL presented to our membership the official invitation to attend the meeting, and the order of business for the House of Delegates. This issue contains various announcements of programs, meetings, reports, House of Delegates personnel and the various activities which make up the Annual Session of the State Medical Society. Every effort has been made to provide as outstanding a program as possible. Plans of many years have been followed, inviting famous speakers from away to give us the very latest in scientific knowledge in the whole field of medicine.

The officers and members of The Council hope that all of our members will make a special effort to attend this meeting. Admittedly, that is not possible, but hopefully an increasingly larger percentage will be able to come than in the past. There are special reasons to attend. By contact with a great many old friends and new, one enters discussions and makes observations. Michigan men have always kept themselves up to date, as is evidenced by the great value of the medical material they have presented to us in the past and are offering to us again. As a medical student, a medical observer, and a reporter of medical affairs, the editor has been impressed over the years, and more so each year, with the amazing breadth and advancement of materials; of the skill and the dispatch with which they are presented and the very high rank of the material made available to our readers. The greatest benefit and new learning are offered on these presentations, by taking part in the discussions and appreciating what is being done for us. We invite all of our members, who possibly can, to come and to attend these meetings—even one day, if you cannot do more. The reward will be immeasureable. This year, there is another reason for attending this meeting.

Five-Year Presidents Plan

The Michigan State Medical Society is in a program set up "to add five useful years to the population of our State," climaxing with the Centennial Meeting in 1965. All late Presidents and MSMS Committees have continued this program, establishing many studies and carrying through related projects. That interest has always been medicine's forefront, and especially for the last five years.

We are now faced with a political attempt to gain power and votes by inducing the over-65 population to endorse a certain political trickery being perpetrated. The administration and its special health, education and welfare spokesman, Secretary Ribicoff, are grasping every opportunity to talk over TV and radio against the medical profession, presenting the idea of Social Security Medicare coverage, and blasting the medical profession for objecting to it. This political pressure undoubtedly was underwritten by the taxes we pay! The misrepresenta-

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tions became so bad that on May 14, Dr. Edward Annis, representing the American Medical Association, spoke 30 minutes over some of the national TV broadcasting stations to clarify some points that might be presented by the President in his May 20 broadcast* to the nation. Our membership should take every opportunity to become acquainted with what is being done and what can be done to preserve private practice of medicine.

(A news report on the President's Press Conference, May 17, said he is even more determined against medicine than he was against steel.)

Doctors and Practice

About 200 physicians in four New Jersey hospitals signed a protest against the administration supported King-Anderson Bill, that they would not care for patients under the King-Anderson Bill if it should pass. The first news report was followed by an outburst of officials and a savage blast at the medical profession for having the audacity to oppose the President's pet program for care of the aged and an accusation that the doctors would be disregarding the Hippocratic oath.

Before publishing the article, the editorial writer of the *Battle Creek Enquirer and News* called the physician responsible for the program in New Jersey and talked with him. The editor suspected from the tone and the facts that something was missing in the report. Sure enough, after talking with the doctor and others in the New Jersey area and making a check-up through the news source, he found someone had omitted the statement that the doctors agreed they would take care of the senior citizen patients as they always had, and that such patients would receive needed medical services even if they had to be done free.

Later, a group of doctors in Iowa passed a similar resolution to the effect that they would not care for these patients under the terms of the King-Anderson Bill but would do so through other recognized insurance and payment programs. There has never been a time in history, so for as the medical profession knows, when the doctors have been so heartless as to refuse care for the indigent sick. This is what the President and Ribicoff, his Secretary of Health, Education and Welfare, are implying.

Blue Cross and Blue Shield and hundreds of insurance companies have established insurance programs for those over 65. The amount to be deducted by the Kennedy-King-Anderson program would pay for a year's insurance without deductibles. The public has not yet realized that the King-Anderson Bill has its deductibles. Under it, no patient can get in the hospital without paying $20 to $110 deductible. Where the money will come from in about three million oldsters is a mystery so far. That is the law Kennedy et al propose to put across.

The medical profession, instead of striking and refusing to care for these patients, could take a leaf from the President's own program and demand a down payment from this Social Security group, as the government is doing to cover its basic medical charges. If the government makes that demand, it cannot criticize the medical profession for doing the same. Government has failed to fully cooperate and in some areas to allow the Kerr-Mills Bill to function. Under that program, hospitals would be paid, the doctors would be paid, and the cost to patients would be less than King-Anderson is charging.

We see no possible reason why Ribicoff could continue to blast the medical profession for failure to live up to the Hippocratic oath. The government is following a plan which they accuse the doctor of not doing. The Battle Creek editor also studied the Hippocratic oath and reported to his readers that he had read the oath very carefully and there was absolutely no breaking of that oath in doing what the doctors were proposing: "I will take care of my patients to the best of my ability."

Just What Is The Issue?

On May 8, one of our outstanding Michigan surgeons told the editor he had not understood until a week before that there is no medical service included in the King-Anderson (HR 4222) Bill which the President is trying so desperately to enact into law. He suggests that the AMA, and others objecting to this proposal, instead of talking about the threat of socialized medicine, tell the public actual facts in the case, what is and is not offered. Comments made about the medical profession by Secretary of Health, Education and Welfare Ribicoff are utterly vicious. He spouts at every opportunity he can find to place the medical profession in a bad light.

So, let us review the medical profession's program which is covered by the Kerr-Mills Law now in operation in most of the states. It is purely the Blue Cross and Blue Shield program for the lower income groups and is so specified in the Michigan sponsoring law. The ceiling is too low, and the medical profession has been asking the legislature to raise that ceiling. This act is on the books and could work throughout the state, if it were not for political pressure. It covers the over-65 persons of low income, and provides care for them through general tax, state, local and national. It is estimated that about 60,000 in Michigan come under that category. Governor Swain-

*Dr. Annis's reply next day cost the AMA $75,000 for thirty minutes over one network.

son told the President by letter that it was inactive in Michigan because only 20 per cent of those people took advantage of it last year (when it was just getting started). Maybe the other 80 per cent were not ill; 20 per cent is about an average reasonable usage. The Kerr-Mills Act is complete coverage for those people eligible except for one group—the Type 2 services in which a 10 per cent deduction is collected directly by the doctor or hospital up to a total of $25 for the year.

The King-Anderson Bill covers everybody who is a beneficiary of Social Security, primarily those over 65, but also other retirees, rehabilitation patients and like categories with no question as to their ability to pay. The King-Anderson Bill is called and referred to as a "medical care program for the aged." It does not provide any medical services except anesthesiology, pathology, radiology and psychiatry which are covered only as hospital services. The Bill does provide hospital care and nursing service up to 90 days; after that, home nursing service, providing the patient has been in the hospital for 180 days. There is no provision for re-entry unless the patient comes in as a brand new case. The proponents of this Bill never mention the deductible amount which exists in spite of the fact that it is supposed to take care of the desperately needy. On entering the hospital, the patient must pay $20 for two days, and then $10 a day up until $90 for his hospital care. The patient must also pay the first $20 of all diagnostic, laboratory programs. Neither of these payments, amounting to $110, are accumulative. That is, if the patient leaves the hospital and later comes back in, he must come in as a new case and pay deductibles all over again.

Where We Stand

To recapitulate, the medical profession program (Blue Cross-Blue Shield) is a lower income program, pure and simple, with full coverage. The administration program is a hoax upon the people. Tremendous efforts have been made to gather together the older people, that Kennedy and others may talk to them in various parts of the country. They are not told of the limitations or deductions.

This program removes from general tax all beneficiaries of social security no matter what their income—including even millionaires who are beneficiaries of Social Security. It places them on a very special tax levied by the federal government, not on the general income producing people, but upon the first $4,800 or $5,200 earned by everybody who is working, except preachers and doctors of medicine. All persons who are earning over $5,200 contribute that much tax and no more.

This tax was set up—this whole program was set up—to take care of the low income people who could not build a reserve for their old age. It was put under Social Security, and the beneficiaries were told their old age needs would be taken care of. Social Security was never intended to be a service program—but a benefit program. The amounts were to be paid in money which the recipient could use as he wished and were tax free.

Now the program is to change the whole picture and offer "services" to Social Security beneficiaries.

The medical profession does not object to provision for medical and health care to the lower income, inadequately provided groups. They should, however, be included under a general tax which everybody pays, not a special tax on the first monies anybody earns. That is our understanding of the provision of these two programs. The medical profession proposes the Kerr-Mills Act which is effective and is actually our Blue Cross-Blue Shield program. The other, that advocated by the administration, is being dictated by Ribicoff and numerous others who are spending tremendous amounts of money which must come from some place. Their radio and television programs are frequent. The medical profession should get an equal time to present its case.

We are fighting a political battle. The one side is proposing care for the aged and for low income groups. The medical profession has been placed upon the defensive at almost every instance. Ribicoff and his cohorts grab every opportunity to make impassioned speeches, only half truths and sometimes not that. Older people are being completely deceived. They do not know what they are bargaining for and apparently neither do many medical men. The assumption of power and dictatorial tactics by the administration is illustrated by the steel controversy in which, by using Presidential power, the whole steel industry was compelled to accept wage increases negotiated by the government but absolutely refused the privilege of raising prices to correspond with the increased wage cost.

When one remembers the narrow squeak of only 115,000 votes by which this administration was elected, he is amazed at the extent to which that "vote of confidence" has put everybody under governmental domination. Kennedy told the medical profession early—in fact before the election—what his program would be. He has demonstrated his powers in labor negotiations and industry price fixing.

Never forget another provision in the King-Anderson Bill, by which hospitals and all the services rendered in them will be strictly under the supervision and approval of the Secretary of Health, Education and Welfare—Mr. Ribicoff. Ribicoff could put all medical personnel under salary by hospitals.

Michigan State Medical Society

Ninety-Seventh Annual Session

SHERATON-CADILLAC HOTEL, DETROIT,
SEPTEMBER 23-24-25, 1962

MSMS House of Delegates, 1962

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SANILAC
Keate T. McGunegle, MD, Sandusky
Michael H. Jayson, MD, 6294 E. Marlette Street, Marlette

SHIAWASSEE
Claude L. Weston, MD, Matthews Building, Owosso
Eugene S. Austin, MD, 1260 Ada Street, Owosso

TUSCOLA
Lloyd L. Savage, MD, 147 W. Lincoln, Caro
E. N. Elmendorf II, MD, Vassar

VAN BUREN
Thomas J. Dillion, MD, RFD 3, Paw Paw
Adelbert L. Stagg, MD, 9 N. Maple Street, Hartford

WASHTENAW
Clarence E. Crook, MD, 2112 Wallingford, Ann Arbor
Harold F. Falls, MD, University Hospital, Ann Arbor
Henry A. Scovill, MD, 1313 W. Cross Street, Ypsilanti
Harry A. Towsley, MD, University Hospital, Ann Arbor
L. Dell Henry, MD, 706 W. Huron Street, Ann Arbor
Charles J. Tupper, MD, No. 2 Medford Court, Ann Arbor
Gerhard H. Bauer, MD, 2015 Manchester Road, Ann Arbor
Dean P. Carron, MD, 425 E. Washington, Ann Arbor
Alexander Gotz, MD, 2201 Medford Road, Ann Arbor
Stuart M. Gould, MD, Mercywood Hospital, Box 65, Ann Arbor
George W. Morley, MD, University Hospital, Ann Arbor
John M. Sheldon, MD, University Hospital, Ann Arbor

WAYNE
Ralph R. Cooper, MD, 850 Lakeland, Grosse Pointe 30
Alfred H. Whittaker, MD, 17000 E. Jefferson Ave., Grosse Pointe 30
Robert K. Whiteley, MD, 608 Eastland Center, Professional Bldg., Detroit 36
Don W. McLean, MD, 1066 Fisher Bldg., Detroit 2
James J. Lightbody, MD, 1553 Woodward Ave., Detroit 26
James B. Blodgett, MD, 76 W. Adams Street, Detriot 26
David I. Sugar, MD, 18104 Oak Drive, Detroit 21
Milton R. Weed, MD, 1997 E. Grand Blvd., Detroit 11
Sidney Adler, MD, 3011 W. Grand Blvd., Detroit 2
Paul J. Connolly, MD, 16778 Westmoreland Road, Detroit 19
Albert D. Ruedemann, Sr., MD, 1553 Woodward Avenue, Detroit 26
James D. Fryfogle, MD, CD 8 Medical Concourse, Northland Center, Southfield
Wyman C. C. Cole, Jr., MD, 3011 W. Grand Blvd., Detroit 2
Jack Rom, MD, 8600 W. McNichols Road, Detroit 21
William J. Yott, MD, 854 Lakeshore Road, Detroit 36
Francis P. Rhoades, MD, 5057 Woodward Ave., Detroit 2
Raphael Altman, MD, 5057 Woodward Ave., Detroit 2
Phillip J. Huber, MD, 1724 Bassett, Royal Oak
Homer A. Howes, MD, 1515 David Whitney Bldg., Detroit 26
Alice E. Palmer, MD, 3919 John R. Street, Detroit 1
George T. Bradley, MD, 1553 Woodward Ave., Detroit 26
Alexander Blain III, MD, 2201 E. Jefferson, Detroit 7
John G. Slevin, MD, 10 Witherell Street, Detroit 26
Edward J. Tallant, MD, 18041 Greenfield, Detroit 35
A. Hazen Price, MD, 408 David Whitney Bldg., Detroit 26
Hugh W. Henderson, MD, 18101 E. Warren, Detroit 24
Jacob F. Wenzel, MD, 17310 Wildmere, Detroit 21
Laurence F. Segar, MD, 10 Witherell Street, Detroit 26
G. Thomas McKean, MD, 1553 Woodward Avenue, Detroit 26
Charles E. Darling, MD, 673 Fisher Bldg., Detroit 2
Louis Carbone, MD, 14711 Gratiot Avenue, Detroit 5
Richard E. Wunsch, MD, 497 Rivard Blvd., Grosse Pointe 30
Brock E. Brush, MD, 2799 W. Grand Blvd., Detroit 2
Elden C. Baumgarten, MD, 20867 Mack Avenue, Grosse Pointe Woods 36
Arthur B. Levant, MD, 15715 E. Warren, Detroit 24
Edward M. Vardon, MD, 12897 Woodward Avenue, Highland Park 3
Luther R. Leader, MD, 1553 Woodward Avenue, Detroit 26
Meyer O. Cantor, MD, 26831 Woodward Avenue, Huntington Woods

Herbert W. Devine, MD, 22101 Moross Road, Detroit 36
Floyd B. Levagood, MD, 14056 Artesian, Detroit 23
John R. Brown, MD, 702 Maccabees Bldg., Detroit 2
Louis J. Bailey, MD, Northland Center, Southfield
Joseph Hickey, MD, 23100 Cherry Hill, Dearborn
Robert G. Swanson, MD, 17800 E. 8 Mile Road, Detroit 36
William L. Brosius, MD, 16150 Sorrento, Detroit 35
A. Jackson Day, MD, 245 Cloverly Road, Detroit 36
Aaron Z. Rogers, MD, 20451 Mack Avenue, Detroit 36
William M. Tuttle, MD, 307 David Whitney Bldg., Detroit 26
Charles J. France, MD, 838 Berkshire Rd., Grosse Pointe 30
Howard C. Rees, MD, 15700 Mack Avenue, Detroit 34
Max L. Lichter, MD, 2900 Oakwood Blvd., Melvindale
Joseph R. Montante, MD, 18715 Bretton Drive, Detroit 23
Frank S. Perkin, MD, 3011 W. Grand Blvd., Detroit 2
George S. Fisher, MD, 1709 David Whitney Bldg., Detroit 26
Edward H. Lauppe, MD, 1553 Woodward Ave., Detroit 26
Clement J. Pollina, MD, 21503 Harper, St. Clair Shores
Clarence L. Candler, MD, 20040 Mack Avenue, Detroit 36
Rosser L. Mainwaring, MD, 1910 Russell, Dearborn
William J. Coulter, MD, 5258 Chatsworth, Detroit 24
John G. Graham, MD, 491 Lincoln Road, Grosse Pointe 30
Elmer B. Miller, MD, 20 Oxford Road, Pleasant Ridge
Melvin S. Dennis, MD, 751 S. Military Street, Dearborn
Hugh M. Fuller, MD, 1257 David Whitney Bldg., Detroit 26
Clarke M. McColl, MD, 2799 W. Grand Blvd., Detroit 2
Harold B. Fenech, MD, 324 Professional Bldg., Detroit 1
Raymond J. Kokowicz, MD, 19440 Van Dyke, Detroit 34
Louis E. Heideman, MD, 20211 Greenfield Road, Detroit 35
John W. Moses, MD, 754 Fisher Bldg., Detroit 2
Melvin T. Batchelor, MD, 18060 Conant, Detroit 34
Leon Rottenberg, MD, 13419 Fenkell Avenue, Detroit 27
Francis P. Walsh, MD, 654 Fisher Bldg., Detroit 2
Milton L. Sorock, MD, 19467 Livernois, Detroit 21
Eli J. Igna, MD, 2799 W. Grand Blvd., Detroit 2
Carl J. Sprunk, MD, 2900 Oakwood Blvd., Melvindale
Lyle W. Korum, MD, 18585 E. Warren Street, Detroit 36
Dwight C. Ensign, MD, Franklin
Laurel S. Eno, MD, 212 Eastland, Professional Bldg., Detroit 36
Paul T. Chapman, MD, 1151 Taylor Avenue, Detroit 2
Earl C. Long, MD, 19751 Couzens Highway, Detroit 35
Joseph O. Reed, MD, 448 Lincoln, Detroit 30
Fred W. Whitehouse, MD, 2799 W. Grand Blvd., Detroit 2
Earl E. Weston, MD, 18101 Jas. Couzens Highway, Detroit 35
George Mogill, MD, 3150 Second Blvd., Detroit 1
Lee E. Feldkamp, MD, 360 N. Main, Plymouth
Walter W. Hassig, MD, 20914 Kelly, East Detroit
Benjamin Jeffries, MD, 16321 Mack Avenue, Detroit 24
Frank S. Fordell, MD, 441 S. Oakwood Ave., Detroit 17
Walter L. Anderson, MD, 1553 Woodward Avenue, Detroit 26
Lambertus E. Beeuwkes, MD, 13014 Mackenzie Avenue, Detroit 28
Francis L. Granger, MD, 14160 Gratiot Avenue, Detroit 5
Frederick B. Steiner, MD, 7675 Ridge Road, Plymouth
John J. Long, MD, 12421 Monica Street, Detroit 4
Everal M. Wakeman, MD, 23100 Cherry Hill, Dearborn
Theodore H. Hunt, MD, 19431 Van Dyke Avenue, Detroit 34
J. Hugh Lewis, MD, 1543 Ford Ave., Wyandotte
Thomas J. Ganos, MD, 6742 Park Avenue, Allan Park
Alexander B. Stearns, MD, 1116 Maccabees Bldg., Detroit 2
William Jend Jr., MD, 1365 Cass Ave., Detroit 26
Morris Raskin, MD, 987 E. Jefferson, Detroit 7
Waldo L. Cain, MD, 8033 Twelfth Street, Detroit 6
Robert M. Whitrock, MD, 20250 Mack Avenue, Grosse Pointe 36
Clayton M. Shors, MD, 19635 Mack Avenue, Detroit 35
Arthur L. Thompson, MD, 12632 Dexter, Detroit 38

WEXFORD-MISSAUKEE

Gregory P. Moore, MD, 107½ N. Mitchell, Cadillac
M. Dean Bentley, MD, 828 Oak Street, Cadillac

Annual Sessions Activities

(Continued from Page 820)

THE WAYNE STATE UNIVERSITY COLLEGE OF MEDICINE ALUMNI ASSOCIATION will hold an Open House at the Sheraton-Cadillac Hotel in the Wayne State University Alumni Suite. Representatives of the University will be in attendance. All alumni, faculty, and friends are cordially invited. Cocktails and hors d'oeuvres will be served from 4:00 to 6:00 p.m. on Wednesday, September 26.

The WSU Alumni Association will also maintain a Headquarters Suite in the hotel throughout the Annual Session.

NEW INFORMATION IN THE EXHIBIT

The Exhibit Section at MSMS Annual Sessions is as important, informative, and desirable to most doctors of medicine as the scientific papers presented in the Assembly room. Many items of interest or education will be found in the large exhibit of over 100 educational displays.

Bring to the MSMS convention a "WANT LIST" of your medical-surgical needs and place an order with your MSMS exhibitor friends.

FORM FOR RESOLUTIONS TO HOUSE OF DELEGATES

All resolutions, special reports, and new business shall be presented in writing in triplicate (Bylaws, Chapter 9, Section 13).

Title of Resolution

Submitted by _____ M.D. of

_____ County Medical Society

Whereas, the _____

_____

Whereas, it is _____

_____

_____, therefore be it

RESOLVED: That _____

_____

Each Delegate is invited to send copy of all resolutions to Speaker J. J. Lightbody, M.D., Box 152, East Lansing.

Annual Reports

ANNUAL REPORT OF ADVISORY COMMITTEE TO MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY—1961-1962

The Advisory Committee to the MSMAS had two meetings during the current year with the executive committee of MSMAS. Several more or less continuous projects are in development requiring frequent additional conferences.

Recommendations include:

1. That MSMAS establish an office in the Michigan Health Council Headquarters as the further development of this organization on a state level. Secretarial and telephone answering service, the forwarding of mail, perhaps employment and other services may be begun. The cost to the Medical Assistants Society is not expected to exceed thirty to forty dollars a month and is an excellent beginning.

2. We recommend that Mr. John A. Doherty, Director of the Michigan Health Council, be appointed as an advisor to this group because of the afore-mentioned offer and because of his wide contacts in this state.

3. That the component MSMAS societies continue to encourage the local colleges to offer their in-service training program and to initiate a study into the causes of the high rate of attrition which is presently occurring where the programs are being taught.

4. We recommend that the MSMS stand ready to assist this organization financially in addition to a prior donation of three hundred dollars ($300.00), in both money, morale and help its members in their 1962 National Convention which is being held in Detroit in September of this year.

The chairman takes this occasion to thank the members of this committee and the officers of the MSMAS for the time they have given and for their support.

G. E. Millard, M.D., *Chairman*
R. L. Green, M.D.
J. W. Rice, M.D.
H. C. Tellman, M.D.
T. J. Trapasso, M.D.

ANNUAL REPORT OF ADVISORY COMMITTEE TO WOMAN'S AUXILIARY OF THE MICHIGAN STATE MEDICAL SOCIETY—1961-1962

The Woman's Auxiliary has operated so efficiently that only one meeting of the Advisory Committee has been held. During the annual meeting in September, 1961, overall plans were discussed and formulated. An occasional phone call clarified any issue that arose later.

The Committee wishes to congratulate the officers and members of the Auxiliary on the success they have achieved in carrying out the policies of their organization and to acknowledge with gratitude the indispensable service rendered their parent organization, the Michigan State Medical Society.

Milton A. Darling, M.D., *Chairman*
W. A. Hyland, M.D., *Vice Chairman*
Paul Ivkovich, M.D.
D. W. McLean, M.D.
C. I. Owen, M.D.

ANNUAL REPORT OF COMMITTEE ON BLOOD BANKS—1961-1962

No matters were brought to the attention of this Committee during the past year, so it was unnecessary to call the Committee into session.

R. L. Mainwaring, M.D., *Chairman*
Julius Rutzkey, M.D., *Vice Chairman*
G. D. Cummings, M.D.
A. J. French, M.D.
W. G. Gamble, M.D.
L. W. Gardner, M.D.
L. D. Henry, M.D.
A. A. Humphrey, M.D.
D. L. Kessler, M.D.
E. E. Muirhead, M.D.
L. W. Walker, M.D.

ANNUAL REPORT OF COMMITTEE ON CANCER CONTROL—1961-1962

The Committee held two meetings during the past Society year, on January 11 and on May 17, 1962.

1. The Committee discussed uniform method of reporting positive and negative smears and present utilization and availability of cytology in the United States. The national Ad Hoc Committee on Cytology (representing the American Cancer Society, College of Pathologists, U. S. Public Health Service, and the National Cancer Institute) is still active on this subject and recently recommended that a national workshop on this problem be held in an attempt to reach a nationally acceptable program. The MSMS Cancer Control Committee feels that the smears could be reported as "suspicious" (another smear is necessary,) "positive", and "negative".

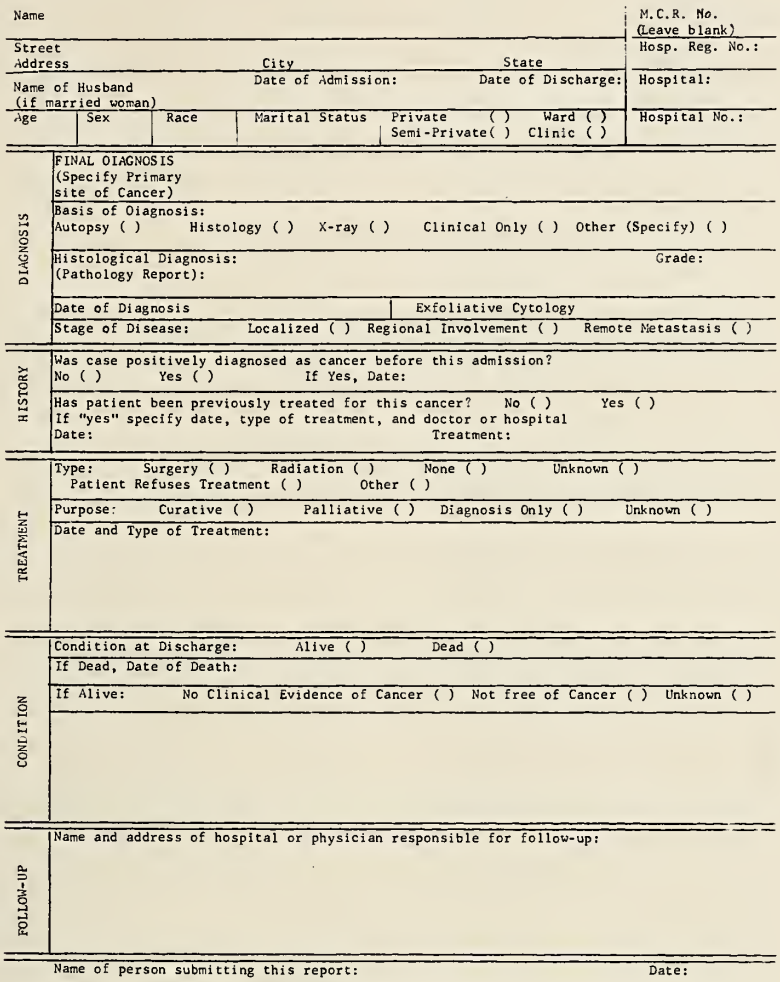
2. MSMS House of Delegates (1961) suggestion re coding Michigan Cancer Registry Cases. The report on January 25, 1962 of the Michigan Cancer Registry Director, Isidore Selzer, M.D., answering the inquiry of this Committee on this subject, is as follows:

In answer to your inquiry, I am enclosing a copy of the case abstract form which we recommend for use by the hospital cancer registries which participate in our Central Registry Program. You will note that this form is an exact duplicate of the one included by the American College of Surgeons in its *Manual for Cancer Programs*.

The form which we have adopted according to the suggestion of the American College of Surgeons is in no way intended to be obligatory, but rather serves as a guide to the type and content of the information which

we feel is essential for the success of the Registry. However, standardization of reporting is a goal which is greatly to be desired.

I shall attempt to outline for you the procedure followed by the Registry in handling the information received from the various hospitals.



Name | M.C.R. No. (Leave blank)

Street Address | City | State | Hosp. Reg. No.:

Name of Husband (if married woman) | Date of Admission: | Date of Discharge: | Hospital:

Age | Sex | Race | Marital Status | Private ( ) Ward ( ) Semi-Private ( ) Clinic ( ) | Hospital No.:

DIAGNOSIS

FINAL DIAGNOSIS (Specify Primary site of Cancer)

Basis of Diagnosis: Autopsy ( ) Histology ( ) X-ray ( ) Clinical Only ( ) Other (Specify) ( )

Histological Diagnosis: (Pathology Report): Grade:

Date of Diagnosis | Exfoliative Cytology

Stage of Disease: Localized ( ) Regional Involvement ( ) Remote Metastasis ( )

HISTORY

Was case positively diagnosed as cancer before this admission? No ( ) Yes ( ) If Yes, Date:

Has patient been previously treated for this cancer? No ( ) Yes ( )
If "yes" specify date, type of treatment, and doctor or hospital
Date: Treatment:

TREATMENT

Type: Surgery ( ) Radiation ( ) None ( ) Unknown ( )
Patient Refuses Treatment ( ) Other ( )

Purpose: Curative ( ) Palliative ( ) Diagnosis Only ( ) Unknown ( )

Date and Type of Treatment:

CONDITION

Condition at Discharge: Alive ( ) Dead ( )

If Dead, Date of Death:

If Alive: No Clinical Evidence of Cancer ( ) Not free of Cancer ( ) Unknown ( )

FOLLOW-UP

Name and address of hospital or physician responsible for follow-up:

Name of person submitting this report: Date:

MICHIGAN CANCER REGISTRY
CASE ABSTRACT

Upon receipt of the case abstracts, these are checked against the existing file for previous entry, to avoid duplications. The cases are then numbered and coded as to diagnosis. The information contained in the case abstract is coded and transferred to IBM punched cards. Both the original case abstracts and the IBM cards are then filed in locked file cabinets. This information is accessible only to members of the Registry staff assigned to this project.

A progress follow-up inquiry will be made annually on each patient. This will be done through the hospital cancer registry, since it is generally accepted both by the American College of Surgeons and others with registry experience that patient follow-up is properly the function of the hospital registry. Thus, our Registry procedure calls for communication with the hospital registry only, and under no circumstances with the patient or patient's family, either directly or indirectly.

As far as the disposition of the assembled data is concerned, there is as yet insufficient data available for any analysis, and no such analyses have yet been undertaken. However, the Board of Trustees has approved a policy which would provide for analysis of hospital data to be furnished to the individual hospital. The material from any one hospital would be furnished to the Cancer Committee of the respective hospital only. Survival studies, as well as other studies which utilize the information from more than one hospital would be done only in such manner that individual hospitals would not be identified.

It is anticipated that whenever feasible, reports on the progress of the Registry will be presented to the Michigan State Medical Society.

I hope that this is the information you are seeking. If I can be of any further assistance, please do not hesitate to call on me.

The form used by the Michigan Cancer Registry is addendum to this Annual Report.

The MSMS Cancer Control Committee believes that the safeguards proposed by the Director of the Michigan Cancer Registry are adequate to insure confidentiality, as recommended by the 1961 MSMS House of Delegates.

3. Approved Cancer Programs in Michigan. Copies of the brochure "Cancer Programs Approved by the American College of Surgeons, 1961" including the "minimal requirements for cancer programs" were distributed to all members of this Committee, together with a list of Michigan institutions conducting approved cancer programs. An article on the "Value of Cancer Registries", recommended by this Committee, was published in JMSMS during the past year.

4. Cancer Screening. More screening for cancer in the offices of doctors of medicine is indicated; this Committee feels the stimulation must be constant and intensive. An editorial on this subject was published in JMSMS.

5. Cancer Number in JMSMS. Annually The Journal is dedicated to cancer control (April Number) Articles, editorials, and scientific manuscripts of importance are included in this very worthy production. The Committee thanks the Publication Committee and the Editor of The Journal for their fine cooperation in thus aiding the fight against cancer in this state.

6. Purposes of MSMS Cancer Control Committee. The purpose of the Committee, not delineated in the MSMS Bylaws, were drafted by the Committee at its May 17 meeting. Stressed was the fostering of professional educational programs.

7. Composition of Cancer Control Committee. For several years, the MSMS President has appointed the medical members of the Michigan Cancer Coordinating Committee as the members of the Society's Cancer Control Committee. Since this has worked out to the mutual benefit of MSMS and the Michigan Cancer Coordinating Committee, this Committee feels that the precedent should be continued.

H. M. Nelson, M.D., *Chairman*
J. W. Hubly, M.D., *Vice Chairman*
Wm. Bromme, M.D.
E. I. Carr, M.D.
J. A. Cowan, M.D.
L. E. Holly, M.D.
W. A. Hyland, M.D.
Isadore Lampe, M.D.
C. Allen Payne, M.D.
O. D. Stryker, M.D.
H. J. VandenBerg, Jr., M.D.

ANNUAL REPORT OF COMMITTEE ON CARDIAC DISEASE CONTROL—1961-1962

The Cardiac Disease Control Committee recommends, in keeping with the President's Program, more intensive activity along educational lines directed to the medical profession and the public with respect to heart disease and diseases of the cardiovascular system.

Determination of the status of rheumatic fever in selected Michigan hospitals was deferred. Mailing of one of the Desk Reference Cards evoked requests for complete sets from over 1200 members of MSMS, and your Committee worked throughout the summer of 1961 and at the fall meeting to revise them word for word. Advice and counsel of several consultants is gratefully acknowledged.

The present agenda includes exploration of a mechanism whereby outstanding essayists may, at a component society's request, make a side-trip from their itinerary to address it, and work has already begun on a series of cards concerned with coronary artery disease. Your Committee believes that a Medical Coordinator is increasingly necessary and that redoubled effort will locate a candidate for the post.

Loss by unexpected death of Carleton Dean, M.D., on December 20, 1961, created an irreplaceable vacancy. Doctor Dean had been a member of this Committee since its formation and was always able to find time in his busy schedule for its problems.

Your Committee wishes to thank the staff of MSMS for its excellent assistance, without which little could have been accomplished, and the chairman commends the members for the careful revision of the Desk Reference Cards.

Meetings were held October 18, 1961 and March 15, 1962.

R. E. Fisher, M.D., *Chairman*
F. J. Chapin, M.D., *Vice Chairman*
J. K. Altland, M.D.
J. G. Bielawski, M.D.
J. B. Blodgett, M.D.
R. R. Cooper, M.D.
S. T. Harris, M.D.
T. B. Hill, M.D.
C. L. Hoogerland, M.D.
J. D. Littig, M.D.
N. L. Matthews, M.D.
R. M. Nicholson, M.D.
W. B. Prothro, M.D.
J. S. Rozan, M.D.
D. S. Smith, M.D.
B. J. Sweeney, M.D.
E. J. Tallant, M.D.
R. D. Tupper, M.D.
H. R. Weisheit, M.D.
Mr. Abraham Brickner
Mr. James Gerity, Jr.

ANNUAL REPORT OF COMMITTEE ON DIABETES CONTROL—1961-1962

The program of diabetes control was conducted by the Committee along the lines agreed upon between the Committee and the Michigan Diabetes Association for the year 1961. Educational programs by county medical societies were stressed and a few such programs were conducted. Case finding programs were conducted using the dreypak clinitron and testape methods resulting in many thousands of people being checked and a few newly discovered cases.

Plans for the 1962 program were developed at a meeting between members of the Diabetes Control Committee and the Michigan Diabetes Association on May 10. It was decided that more stress is to be put on the development of educational meetings at the county society level as well as programs for laymen, aimed at encouragement of frequent examinations for those who might be suspicious cases.

The continued use of the dreypak and testape methods are planned in such areas where they appear more practical but more emphasis will be put on the clinitron test conducted in conjunction with the state chest x-ray program. This seems to be more productive of good results at less cost.

More forceful efforts will be aimed at a greater program of physician participation in the case finding field. So far this seems to be a weak spot and needs more enthusiastic support from Michigan State Medical Society members.

It is planned to send a letter from the Committee to the officers of each county society eliciting this support.

Wm. M. LeFevre, M.D., *Chairman*
R. F. Fenton, M.D., *Vice Chairman*
Sidney Adler, M.D.
W. L. Anderson, M.D.
J. A. Cowan, M.D.
T. B. Mackie, M.D.
F. S. Perkin, M.D.
J. B. Rowe, M.D.
L. F. Segar, M.D.
K. K. Vining, Jr., M.D.
F. W. Whitehouse, M.D.
H. L. Woodburne, M.D.

ANNUAL REPORT OF COMMITTEE ON ETHICS—1961-1962

In view of the total lack of requests, during the entire year, from component societies to review violations of ethics, this Committee held no meetings and has nothing to report. It would appear that any matters of ethics were handled by the component societies to the satisfaction of all parties concerned, obviating any appeal to the State Society. It certainly speaks well for the practice of medicine in Michigan and for the entire Society.

H. W. Porter, M.D., *Chairman*
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F. M. Doyle, M.D.
A. B. Gwinn, M.D.
F. H. Lindenfeld, M.D.
J. D. Miller, M.D.
George Mogill, M.D.
E. A. Osius, M.D.
A. Hazen Price, M.D.

ANNUAL REPORT OF COMMITTEE ON GERIATRICS—1961-1962

The Geriatrics Committee is preparing again an issue of the Michigan State Medical Society Journal, May, 1963, to be devoted to some aspect of The Health Care of Older People.

A sub-committee has been studying the type and quality of service being provided in the various county medical care facilities throughout the State. A report will be forthcoming in the near future and should provide some valuable information.

House Bill 403 recently passed by Legislature would provide a single Board of County Institutions coordinating the services of County Tuberculosis Hospitals, Medical Care Facilities and County Homes for the Aged under one head. The seven counties so far electing to create such a board will be able to give more efficient service at actual savings.

Another group are exploring ways and means to provide care for some 4500 senile individuals occupying beds in mental institutions who could receive improved service in some other type of facility.

Several studies made in key counties throughout the State have shown that the Kerr-Mills Bill has been functioning well through the State except in Wayne County where the local Department of Social Welfare, who administers the Bill, pays only 75% of Hospital costs. Efforts on a State and County level have not been effective in changing this dictate of the Welfare Director.

The Committee met three times last year—in Lansing, Ann Arbor and Saginaw.

The October issue of The Journal of the Michigan State Medical Society was devoted to the various community projects throughout the State interested in helping older people. An effort was made to provide specific information for the physicians in different parts of the State about the various activities already in progress.

Two members of our Committee participated in an evening Public Forum during the Michigan Clinical Institute in March, 1962. This meeting was co-sponsored by the *Detroit Free Press,* which arranged to have Mr. Robert Peterson, the syndicated columnist, appear on the program. "How to Stay Young Longer" was the general theme of the meeting and was attended by about 200 persons.

Two members of our Committee and several other members of the State Society participated in an afternoon Health session of the Michigan Conference on Aging conducted by the Division of Gerontology of the University of Michigan during June, 1961. While the general theme of the conference dealt with the political aspects of aging, our meeting, which was well attended, confined its attention to matters pertaining to the Health Status of the Individual.

A. Hazen Price, M.D., *Chairman*
F. C. Swartz, M.D., *Vice Chairman*
H. B. Bennett, M.D.
J. R. Brink, M.D.
S. E. Chapin, M.D.
J. W. Clay, M.D.
E. F. Crippen, M.D.
G. S. Fisher, M.D.
R. L. Fitts, M.D.
J. V. Fopeano, M.D.
V. A. Getting, M.D.
P. C. Gittins, M.D.
A. H. Hirschfeld, M.D.
O. A. Neison, M.D.
Jack Rom, M.D.
Herbert Rosenbaum, M.D.
C. Howard Ross, M.D.
L. F. Segar, M.D.
C. W. Sellers, M.D.
C. K. Stroup, M.D.
V. K. Volk, M.D.
S. C. Wiersma, M.D.
H. B. Zemmer, M.D.

ANNUAL REPORT OF COMMITTEE ON HIGHWAY ACCIDENT PREVENTION—1961-1962

There were two meetings of the committee this year. At each meeting, the Executive Secretary of the Michigan State Safety Commission and the Chief of the Driver Improvement Program of the Michigan Department of State were guests, and mutual problems were discussed.

Much time was spent in the implementing of the plan for County Medical Societies to appoint medical advisory boards, to be of assistance to the Department of State in the cases where a driver's license has been suspended and a physical condition detrimental to driving may exist. In request cases these boards review the examination information submitted to the Department of State by the driver's physician, and pass on their advice to the Department of State, which makes the actual decision. The Driver Improvement Chief reports that in the last year there has been a marked increase in the number of physicians' reports which recommend that the person involved *not* drive. The Committee notes with approval this assumption of responsibility in an important field of accident prevention by the members of the Michigan State Medical Society.

The Committee initiated the action later taken by the Legislative Committee in recommending and urging passage of that portion of the Uniform Vehicle Code related to chemical tests for driving "while under the influence", and notes with regret that the law failed in this session of the Legislature. The Chairman participated as a member of the panel of a special conference on The Drinking Driver called by the Governor.

A news release dealing with automobile safety was written by the Committee and ordered released at the discretion of the MSMS public relations department. The Chairman was one of the two official representatives of MSMS at the National Health Forum at Cleveland in March. The members of the Committee were active in matters of traffic safety in their own County Medical Societies and local communities. Numerous safety problems were discussed in the meeting of the committee on which no official committee action was taken.

J. R. Rodger, M.D., *Chairman*
V. C. Abbott, M.D., *Vice Chairman*
G. H. Agate, M.D.
Raphael Altman, M.D.
R. T. Blackhurst, M.D.
J. R. Brink, M.D.
H. E. DePree, M.D.
C. M. Hansen, M.D.
E. H. Heneveld, M.D.
W. N. Herbert, M.D.
S. E. Miller, M.D.
R. E. Rowe, M.D.
A. D. Ruedemann, M.D.
H. J. Meier, M.D.

ANNUAL REPORT OF COMMITTEE ON IODIZED SALT—1961-1962

Arrangements have been made through Dr. Harry Towsley to have a restudy of the iodine content in the soil and water of the four counties which were studied in 1917. This is being done through the kindness and cooperation of the Dow Chemical Company and will be very valuable in any future plans of our committee.

Further studies on the marketing analysis on plain versus iodized salt are being carried out. New goiter surveys are being contemplated with the help of Doctor Altland and the State Health Department.

One meeting was held during the year, this on December 7, 1961, at the D.A.C. The completion of the film on iodized salt was planned. Surveys of the school children and sampling of water and soil were also planned for the future. A scientific exhibit is being prepared for the Health Fair.

B. E. Brush, M.D., *Chairman*
J. K. Altland, M.D., *Vice Chairman*
W. H. Beierwaltes, M.D.
J. R. Carney, M.D.
W. S. Carpenter, M.D.
F. B. Levagood, M.D.
R. F. Powers, M.D.
H. A. Towsley, M.D.
R. L. Waggoner, M.D.
M. R. Weed, M.D.

ANNUAL REPORT OF COMMITTEE ON MATERNAL HEALTH—1961-1962

The Committee on Material Health met in October, 1961, at MSMS Headquarters, East Lansing. Subcommittees for Evaluation of Maternal Mortalities, Medical Liaison, Lay Education and Perinatal Mortality were appointed. A definition of Aims and Purposes of the Committee was adopted. This represents specific interests of the Committee and areas in which it hopes to place its main emphasis.

At the January, 1962, meeting in Detroit, the Committee discussed suggested Changes in the Rules and Minimum Standards for Hospital Maternity Departments. Help was given in the revision of Rheumatic Fever Desk Reference Card No. 20 at the request of the Rheumatic Fever Control Committee. The Evaluations Sub-committee reported continued progress in evaluating maternal deaths. It was further announced that regional evaluation committees were now active and attracting more and more doctors around the state into these meetings and discussions. The Medical Liaison Sub-committee announced a forthcoming meeting with representatives of Nursing at which time ways of improvement in obstetric Nurse Recruitment and Training would be discussed. The Lay Education Committee reported continuing interest and leadership in the establishment of Expectant Parent Classes and study of the problem of providing better education within the school systems of Preparation for Parenthood. The Maternal Mortality Tissue Registry Sub-committee announced a great increase in interest in its project.

The Committee's final meeting was held in

May at the MSU Kellogg Biological Center at Gull Lake. Considerable discussion was engendered relative to ways of distributing more widely the valuable information that has been learned from the Maternal Mortality Study now in its thirteenth year of sponsorship by the Committee and the Department of Health. Doctor Behney reported for the Evaluation Sub-Committee that 247 physicians had participated in the various regional evaluation conferences during the year. He reported further that two new regional committees were being established, one in Rogers City and one in Coldwater to expand further this activity. The Chairman announced plans for another request for publication in the Journal of the MSMS. The Medical Liaison Subcommittee reported on the meeting in February with representatives of nursing. These talks are to be continued. Lay Education Sub-committee reported meeting with several educators of the state toward the end of investigating instruction currently given in Preparation for Parenthood in the state school systems. Further, this sub-committee announced cooperation with the Department of Health in providing regional conferences for teachers of Expectant Parent classes.

Following this meeting, a two-day Conference on Maternal and Perinatal Welfare was held in co-sponsorship with the Department of Health. This Conference had the two aims of presenting material from the Maternal Mortality Study and of stimulating interest at county and local level in developing Perinatal Mortality Studies. Seventy-four registrants were present. There were 17 papers given, each dealing with some aspect of the aims of the conference. They were all excellent and the meeting was generally considered to have been most valuable. Interest was expressed in making this an annual event.

The Chairman would like to acknowledge the fine cooperation and enthusiasm of the entire committee. Especial thanks are also due the Michigan Department of Health for the splendid cooperation in all the activities of the committee.

Wm. W. Jack, M.D., *Chairman*
R. F. Trescott, M.D., *Vice Chairman*
F. W. Bald, M.D.
R. C. Bates, M.D.
C. A. Behney, M.D.
C. M. Bell, M.D.
H. R. Brukardt, M.D.
Mary Lou Byrd, M.D.
Goldie B. Corneliuson, M.D.
C. E. Darling, M.D.
R. K. Ferguson, M.D.
A. L. Foley, M.D.
A. James French, M.D.
E. C. Galsterer, M.D.
A. D. Harris, M.D.
J. E. Harryman, M.D.
F. A. Jones, Jr., M.D.
W. C. Lambert, M.D.
A. B. Levant, M.D.
A. G. McQuaig, M.D.
N. F. Miller, M.D.
H. R. Mooi, M.D.
H. A. Ott, M.D.
J. W. Peelen, M.D.
C. S. Stevenson, M.D.
L. B. Stevenson, M.D.
D. W. Thorup, M.D.
J. H. Tisdel, M.D.
C. E. Toshach, M.D.
Milton R. Weed, M.D.

ANNUAL REPORT OF COMMITTEE ON MEDIATION—1961-1962

No matters were brought to the attention of this Committee during the past year, so it was unnecessary to call the Committee into session.

L. R. Leader, M.D., *Chairman*
D. R. Boyd, M.D., *Vice Chairman*
E. B. Johnson, M.D.
E. J. Robson, M.D.
V. P. Russell, M.D.
G. B. Saltonstall, M.D.
E. F. Sladek, M.D.
E. E. Martmer, M.D.
E. P. Rhoades, M.D.
E. M. Vardon, M.D.

ANNUAL REPORT OF COMMITTEE ON MENTAL HEALTH—1961-1962

Summary of Recommendations:

. . . that the Chairman of this Committee attend the Eighth Annual Conference of Mental Health Representatives of State Medical Associations, February 2-3, 1962, Drake Hotel, Chicago, Illinois;

. . . that the Joint Commission of the American Psychiatric Association and AMA be commended for its report "Action For Mental Health";

. . . that this Committee use the report *Action for Mental Health* for continuing discussion and subsequent recommendations;

. . . that the Michigan State Medical Society should delegate two official representatives to attend the Mental Health Department's public meetings, in addition to those representatives on the Mental Health Commission, and on this Committee;

. . . that the Michigan Society of Neurology and Psychiatry be requested to include in its issue of *"The Newsletter"* detailed information concerning funds recommended by (1) the Society, (2) the Department of Mental Health and, (3) the Governor, to carry on work of the Department of Mental Health;

. . . that the MSMS Woman's Auxiliary Mental Health Committee Chairman (Mrs. W. H. Obenauf) be invited to attend all future meetings of the MSMS Mental Health Committee for the year 1961-1962;

. . . that the Inter-state Compact for Mental Health be supported;

. . . that this Committee have the advantage of receiving regularly the minutes of the MSMS Committee on Alcoholism and Drug Addiction;

. . . that Doctor Raymond W. Waggoner, and each of his Committee members, receive commendation for the excellent MCI program on "Psychiatric Emergencies";

. . . that the Surgeon-General's ad hoc Committee

report, Public Health Service publication No. 808, be studied carefully by every M.D.;

. . . that the MSMS approve the intent of Public Act No. 123 of 1961, concerning the discretionary application of revocation of driver's licenses of mentally ill patients which can now be accomplished upon the recommendation of the Medical Superintendent of the hospital to which the patient is admitted.

. . . that every effort be made to provide additional helpfulness for the mentally retarded child, and for each member of his family;

. . . that appreciation be expressed for Governor John B. Swainson's conference on Mental Health and Education;

. . . that the first AMA Congress on Psychiatry, to be held October 4, 5, and 6, 1962, Palmer House, Chicago, Illinois, receive the full support of every MSMS member; and that a representative attendance both of physicians and interested laymen be secured as Michigan's representation;

. . . that the Chairman of this Committee supervise the drawing up of an invitational list for this AMA Congress on Psychiatry and forward said list to the MSMS Headquarters for consideration.

During the year, until June 1962, this Committee held three general meetings, each one a hard working session. All medical work may be considered as basically educational in nature. Said Thomas Jefferson, "Health is no more than Learning." The above italics are used to call the attention of every M. D. to the importance to himself of this first AMA Congress on Psychiatry. The Chairman thanks every member of his Committee for the finest kind of helpfulness.

J. M. Dorsey, M.D., *Chairman*
Z. S. Bohn, M.D., *Vice Chairman*
C. P. Barker, M.D.
H. W. Bird, M.D.
F. C. Brace, M.D.
P. N. Brown, M.D.
R. R. Clarke, M.D.
R. T. Costello, M.D.
R. O. Creager, M.D.
S. M. Finch, M.D.
T. J. Heldt, M.D.
L. N. Hershey, M.D.
A. H. Hirschfeld, M.D.
L. E. Himler, M.D.
W. T. Hyslop, M.D.
Benjamin Jeffries, M.D.
R. F. Kernkamp, M.D.
I. A. LaCore, M.D.
J. J. Marra, M.D.
K. T. McGunegle, M.D.
C. J. Mumby, M.D.
W. H. Obenauf, M.D.
E. R. Rodda, M.D.
H. H. Sadler, M.D.
D. D. Salon, M.D.
W. R. Slenger, M.D.
R. W. Waggoner, M.D.

ANNUAL REPORT OF COMMITTEE ON OCCUPATIONAL MEDICINE—1961-1962

1. Three Committee meetings were held—November 3, 1961, January 12 and April 13, 1962.

2. The Committee is in the process of defining the scope and objectives of this Committee.

3. A program for Health Maintenance for Small Industry Employes is being developed.

4. A sub-committee is studying the problems of Workmen's Compensation in relation to the practice of occupational medicine.

5. The Committee met with Deans William N. Hubbard and Gordon H. Scott and discussed present and planned future curricula for undergraduate and postgraduate education in occupational medicine in the State's two medical schools.

6. A policy on tetanus immunization was developed and recommended to The Council of MSMS for approval and distribution to all members of MSMS.

E. A. Irvin, M.D., *Chairman*
E. B. Cudney, M.D., *Vice Chairman*
S. E. Andrews, M.D.
D. L. Block, M.D.
Edwin De Jongh, M.D.
J. H. Ganschow, M.D.
H. L. Gordon, M.D.
E. F. Hersey, M.D.
A. E. Heustis, M.D.
Wm. Jend, Jr., M.D.
M. W. Jocz, M.D.
C. P. McCord, M.D.
G. P. Moore, M.D.
R. D. Mudd, M.D.
P. J. Oschner, M.D.
D. M. Richmond, M.D.
N. W. Scholle, M.D.
S. D. Steiner, M.D.
A. H. Whittaker, M.D.

ANNUAL REPORT OF COMMITTEE ON SCIENTIFIC RADIO AND TELEVISION—1961-1962

Between October 1, 1961 and June 29, 1962 thirty-nine programs were prepared and recorded for lay education throughout the State. These programs were broadcast weekly over the following thirty-seven stations in Michigan and one in Ohio (See attached list).

A new record was established this year for the distribution of scientific radio programs and represents an increase of sixteen over the twenty-one stations that carried the programs in 1960-61.

The listening audience has shown increasing interest in medical information. Over 200 requests for written copies of talks were received by station WUOM. Programs of particular interest this year were on Psychiatry, Periodic Health Examinations, Allergic Diseases and Skin Infections. Programming followed the general format established a year ago of providing two to four talks by the same physician.

At the suggestion of several radio stations, Mr. Edwin Burrows and Mr. William Stegath of the University Broadcasting Service, the committee requested approval to provide fifty-two programs annually. It was approved by the Michigan State Medical Society and is now in operation. There will be weekly programs throughout the summer months as well as the remainder of the year.

It is the desire of your Committee to have greater physician participation in suggesting subject ma-

terial and, in particular, means of achieving broader program distribution.

Again, we would like to call to the attention of the MSMS members that the taped talks are available through the Public Relations office of the MSMS for use as source material for talks they might give in specific health areas or for audience participation. Approximately 500 tapes are available for this purpose.

Your Committee would like to express appreciation to station WUOM and particularly to Mr. Stegath and Mr. Burrows in assisting with the production of these programs. We would also like to thank the twenty-three physicians who participated in this year's programs.

Attached is a list of program titles and speakers.

H. A. Towsley, M.D., *Chairman*
C. J. Tupper, M.D., *Vice Chairman*
S. J. Behrman, M.D.
H. Waldo Bird, M.D.
A. W. Blain, III, M.D.
C. E. Booher, M.D.
H. R. C. Eddy, M.D.
R. D. Feehley, M.D.
D. B. Hiscoe, M.D.
R. H. Howell, M.D.
J. W. Keyes, M.D.
J. W. Rice, M.D.
G. H. Scott, Ph.D.
J. M. Sheldon, M.D.
David Siegel, M.D.

RADIO STATIONS—Scientific Radio
1961-1962

1. WAGN ..... Menominee
2. WCAR ..... Detroit
3. WDET ..... Wayne State University
4. WHAK ..... Rogers City
5. WHRV ..... Ann Arbor
6. WKAR ..... East Lansing *M.S.U.*
7. WLDM ..... Detroit
8. WMAB ..... Munising
9. WMRP ..... Flint
10. WMTE ..... Manistee
11. WTAC ..... Flint
12. WMRT ..... Lansing
13. WKZO ..... Kalamazoo
14. WFRS ..... Big Rapids—Ferris Institute
15. WABX ..... Detroit
16. WMHE ..... Toledo
17. WORS ..... Detroit
18. WELL ..... Battle Creek
19. WIOS ..... Tawas City
20. WOAP ..... Owosso
21. WSJM ..... St. Joseph
22. WATT ..... Cadillac
23. WGRD ..... Grand Rapids
24. WHLS ..... Port Huron
25. WOWE ..... Allegan
26. WLEW ..... Bad Axe
27. WJEF ..... Grand Rapids
28. WLAV ..... Grand Rapids
29. WHMI ..... Howell
30. WOAK ..... Royal Oak
31. WOUB ..... Athens, Ohio—Ohio University
32. WKLW ..... Grand Rapids
33. WMIC ..... St. Helen
34. WDMC ..... Otsego
35. WMBN ..... Petoskey
36. WJBK ..... Detroit
37. WUOM ..... Ann Arbor
38. WVGR ..... Grand Rapids—Ann Arbor Station

Date	*Title*	*Speaker*
10- 6-61	Asian Flu—Immunization	Albert V. Hennessy, M.D. Fred M. Davenport, M.D.
10-13-61	Polio Vaccination	Albert V. Hennessy, M.D.
10-20-61	Internal Injuries in Athletics	Marion S. DeWeese, M.D.
10-27-61	Bone, Joint and Muscle Injuries in Football	Robert W. Bailey, M D.
11- 3-61	The Costs of Health Care	Roger B. Nelson, M.D.
11-10-61	The Costs of Health Care	Roger B. Nelson, M.D.
11-17-61	Reducing Maternal Mortality	Charles A. Behney, M.D.
11-24-61	Perinatal Mortality	Goldie Corneliuson, M.D.
12- 1-61	Anxiety in Children	John P. Kemph, M.D.
12- 8-61	Anxiety in Adults	John P. Kemph, M.D.
12-15-61	Depression in Children	Jack C. Westman, M.D.
12-22-61	Depression in Adults	Jack C. Westman, M.D.
12-29-61	Mental Retardation	Stuart M. Finch, M.D.
1- 5-62	Mental Retardation	Stuart M. Finch, M.D.
1-12-62	The Cause and Prevention of Burns	Irving Feller, M.D.
1-19-62	The Physiology and Treatment of Burns	Irving Feller, M.D.
1-26-62	Signs and Symptoms of Bowel Obstruction	Darrell A. Campbell, M.D.
2- 2-62	Acute Surgical Conditions of the Bowel	Darrell A. Campbell, M.D.
2- 9-62	Periodic Health Examinations for the American Citizen—Jr. & Sr.	Charles J. Tupper, M.D.
2-16-62	Periodic Health Examinations for the American Citizen—Jr. & Sr.	Charles J. Tupper, M.D.
2-23-62	Prevention of Disease and Immunization of the Infant	George H. Lowrey, M.D.
3- 2-62	Feeding and Food Requirements	George H. Lowrey, M.D.
3- 9-62	Common Hazards and their Prevention in Infancy and Childhood	George H. Lowrey, M.D.
3-16-62	Poison Prevention	George H. Lowrey, M.D.
3-23-62	Allergic Reaction of the Skin	Richard Harrell, M.D.
3-30-62	Fungus Infection or Ringworm of the Feet and its Treatment	Richard Harrell, M.D.
4- 6-62	Common Birthmarks of the Skin and their Significance	Richard Harrell, M.D.
4-13-62	Common Causes of Anemia in Adulthood	Muriel C. Meyers, M.D.
4-20-62	Common Causes of Anemia in Childhood	Ruth Heyn, M.D.
4-27-62	The Present Status of Chemotherapy in Carcinoma	Dr. David G. Anderson
5- 4-62	The Management of Miscarriages	James P. Youngblood, M.D.
5-11-62	Hearing Losses in Children	Walter P. Work, M.D.
5-18-62	Hearing Losses in Adults	Walter P. Work, M.D.
5-25-62	What the Pollen Count Means to You	James A. McLean, M.D.
6- 1-62	Rose Fever	James A. McLean, M.D.
6- 8-62	Advances in the Treatment of Allergy	James A. McLean, M.D.
6-15-62	The Importance of the Pre-Marital Examination for the Bride	Tommy N. Evans, M.D.
6-22-62	The Importance of the Pre-Marital Examination for the Groom	Bruce Stewart, M.D.
6-29-62	Fourth of July Hazards	George H. Lowrey, M.D.

ANNUAL REPORT OF COMMITTEE ON TUBERCULOSIS CONTROL—1961-1962

The Tuberculosis Control Committee met on November 8, 1961, and on March 21, 1962.

1. The Committee restated its firm belief that tuberculosis continues to be a serious public health problem, and that this is no time to discontinue intensive efforts directed towards case finding and adequate treatment.

2. The purpose of the Tuberculosis Control Committee has been restated as follows: "To eradicate tuberculosis in the State of Michigan, and to develop systems and procedures toward the end of controlling tuberculosis in the State."

3. Expansion of the Committee to include all respiratory diseases was disapproved until tuberculosis is under more adequate control.

4. The Committee was represented at a regional workshop held in Chicago on October 11, 1961.

5. A subcommittee outlined the role of the private practitioner in tuberculosis control. The chair-

man presented this report to the Michigan Tuberculosis and Respiratory Disease Association, who agreed to cooperate fully in distributing this information to the doctors of Michigan. A short article based on this report is to be published in The Journal MSMS, and the Committee has requested that a paper on this subject be included at the November meeting of the MAAGP.

6. A Program of the Michigan Tuberculosis and Respiratory Disease Association to publicize and implement a week of tuberculosis testing in the State of Michigan was endorsed and supported by the Committee.

R. L. Rapport, M.D., *Chairman*
P. T. Chapman, M.D., *Vice Chairman*
M. B. Conover, M.D.
W. N. Davey, M.D.
J. L. Egle, M.D.
L. F. Hayes, M.D.
H. C. Hill, M.D.
J. L. Isbister, M.D.
A. H. Kempter, M.D.
E. J. Klopp, M.D.
G. H. Phillips, M.D.
L. A. Pratt, M.D.
R. A. Rasmussen, M.D.
C. J. Stringer, M.D.
W. M. Tuttle, M.D.
Jack Foy Wu, M.D.
Stewart Yntema, M.D.

ANNUAL REPORT OF COMMITTEE ON VENEREAL DISEASE CONTROL—1961-1962

One meeting was held by this Committee during the year 1961-1962, and several matters of continuing importance were considered.

Doctor Schwimmer described the need for legal measures which would relieve the public health physician of the need of obtaining consent from a parent or guardian of a minor for the diagnosis or treatment of a venereal or other contagious disease. He pointed out that in many instances it is very difficult to obtain such consent, and that the protection of the public health will slump badly if legal suit is ever brought against a public health physician in such a case. The motion was made and passed by the Committee that the Committee recommend that the MSMS Council ask the State Commissioner of Health to request an opinion from the State Attorney General on the question whether physical examination and treatment by a registered physician, acting upon the authority of county or city department of health, upon the person of a minor who voluntarily appears, does or does not constitute an assault or an assault and battery upon said person; and so that if such a ruling would be unfavorable that the MSMS then press for necessary legislation. This was approved by The Council of the MSMS.

Dr. John A. Cowan reported that the State Council of Health was considering amendments to Regulation I of the Venereal Disease Regulations (R325.53 State Administrative Code page 2216) proposing that "reports of venereal disease cases and suspected cases shall be made to the full time county health officers where there is one and if there is none then directly to the state health commissioner." The basic purpose of this regulation would be to promote the reporting of positive serologies by laboratories, as suspected cases, not as diagnosed cases, to the county and state health department in order to better ensure that the physician submitting these specimens could make a disposition of the case. The diagnosis and disposition would be made only by the physician submitting the blood, not by the laboratory. The Council of the MSMS opposed such reporting.

Doctor Cowan gave the following figures on the venereal disease problem in Michigan:

A. Number of primary and secondary syphilis cases

1958-59— 79 cases
1959-60—146 cases
1960-61—280 cases

(He added that the largest increase in cases was in the age group 10 to 19.)

B. Percentage of primary and secondary syphilis cases in Michigan reported by private doctors and by clinics, hospitals and other institutions:

(Year)	(Reported by M.D.'s)	(Reported by Clinics, etc.)
1958-59	50.6%	49.4%
1959-60	45.2%	54.8%
1960-61	36.1%	63.9%

C. Percentage of primary and secondary syphilis cases in Wayne County reported by private doctors and by clinics, hospitals and other institutions:

(Year)	(Reported by M.D.'s)	(Reported by Clinics, etc.)
1958-59	34.2	65.8
1959-60	34.8	65.2
1960-61	18.0	82.0

Doctor Cowan reported that the cooperation from doctors is excellent as the state, county and local health department act to follow up on reported cases. He reported that a study of 211 cases of primary and secondary syphilis reported in Michigan between January and August, 1961, all but five of the cases were interviewed, thanks to permission granted by private physicians, and that all but 13 of the 156 cases of early latent and latent cases had been interviewed, thanks again to the cooperation of the private physician.

Upon the recommendation of the Committee, a letter was sent by the MSMS to Doctor Luther L. Terry, Surgeon General of USPHS, urging the renewal of mass blood service in the state of Michigan.

Upon the recommendation of the Committee, a letter was sent to Mr. Allan Barth, Executive Director, Michigan Hospital Association urging the reinstatement of the routine admission tests for syphilis as a requirement for hospital accreditation.

Benjamin Schwimmer, M.D., *Chairman*
Ruth Herrick, M.D., *Vice Chairman*
M. W. Algorn, M.D.
J. A. Cowan, M.D.
A. C. Curtis, M.D.
E. A. Hand, M.D.
David Kahn, M.D.
H. C. Tellman, M.D.
Kornelius Van Goor, M.D.
R. S. Breakey, M.D.
L. W. Shaffer, M.D.

Ruling on Unlicensed Physicians as Anesthetists

A doctor was guilty of unprofessional conduct in permitting unlicensed physicians to administer anesthetics in a hospital under the supervision, direction and control of licensed physicians. The California Supreme Court so ruled in confirming the finding of the Board of Medical Examiners. It held, however, that revocation of the doctor's license was too severe a penalty.

Three foreign physicians who were highly competent in the administration of anesthetics were employed by the doctor, who owned and operated the hospital, to administer anesthetics, including spinal and epidural anesthetics, under the supervision of operating surgeons. The court held that the administration of anesthetics constitutes a part of the practice of medicine. The court acknowledged that the administration of anesthetics by registered nurses under the direction and supervision of a licensed physician may be lawful. It also said that there was some evidence of a common practice in the state to permit administration of general anesthetics by registered nurses, but no substantial evidence of a general practice to permit anesthetics to be given by persons who have no legal authority whatever to perform medical acts.

The court, however, concluded that the revocation of the doctor's license was an abuse of discretion by the Board. It said that the evidence showed that the doctor had acted in the utmost good faith, that the unlicensed anesthetists were highly competent, that the doctor acted in reliance on legal advice, and that the law was not clear and certain on this issue. It said that probation or suspension of judgment would be a more appropriate remedy, and that the case should be returned to the Board for further consideration.

Magit v. Board of Medical Examiners of the State of California, 17 Cal. Rptr. 488, 366 P. 2d 816 (Cal., Dec. 6, 1961)

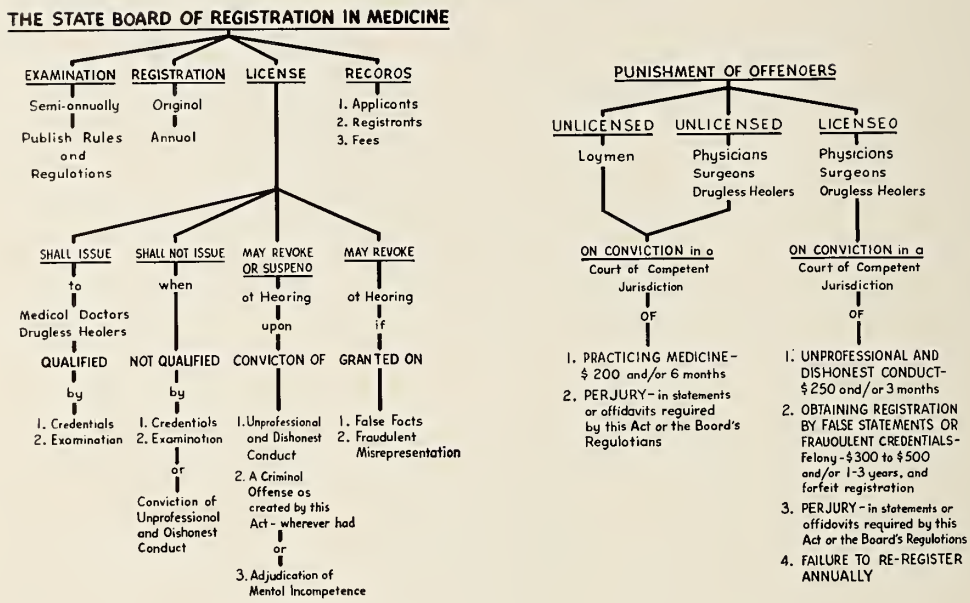
Editor's Note: This decision supersedes the decision of the intermediate appellate court in this case, as previously reported in *The Citation*, Vol. 4, No. 5, p. 21, October 13, 1961.



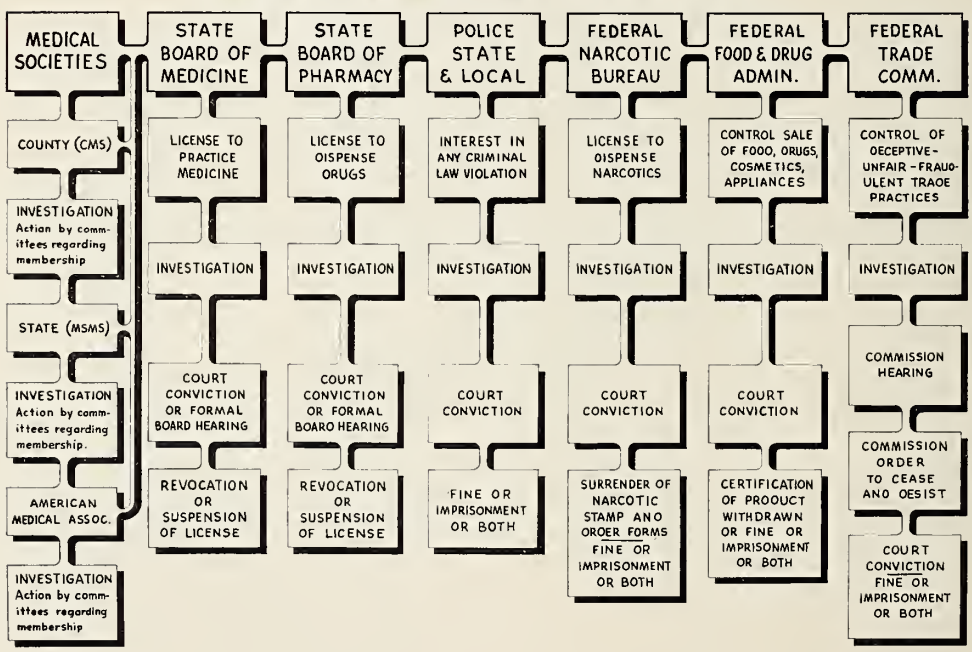
THE MEDICAL PRACTICE LAW OF MICHIGAN

Act 237, Public Acts of 1899, as amended

An Act to provide for the examination, regulation, licensing and registration of physicians and surgeons, and for the punishment of offenders against this Act, ...



MEDICAL DISCIPLINE
UNETHICAL OR ILLEGAL ACTS AND MEDICAL QUACKERY
STATE AND FEDERAL ORGANIZATIONS IN STATE OF MICHIGAN



Joint Statement on Narcotic Addiction in the USA

(The following Joint Statement of the American Medical Association and the National Research Council was developed because there is widespread misunderstanding on the part of the public and various professional and other groups about the problems associated with narcotic addiction. These organizations contend that present efforts should be strengthened to (a) reduce, and if possible, eliminate such addiction and (b) to provide the best possible treatment and rehabilitation services to addicted persons.)

JOINT STATEMENT
BY
AMERICAN MEDICAL ASSOCIATION
AND
NATIONAL RESEARCH COUNCIL
OF THE
NATIONAL ACADEMY OF SCIENCES

The American Medical Association, and the National Research Council for many years have been concerned about and have studied the narcotic drug addiction problem. To assist in carrying out its studies, the American Medical Association collaborated with the American Bar Association in establishing a Joint Committee which made an Interim Report to the two organizations in 1958, and a Final Report in 1959.

It is concluded that there is widespread public and professional misunderstanding about this subject, specifically (1) that the Federal Bureau of Narcotics believes drug addiction to be a crime; a belief that is contrary to the Federal law and its application by the Bureau, and (2) that the American Medical Association proposes the establishment of community ambulatory clinics for the withdrawal of narcotics from addicts or for the continuing maintenance of addicts on narcotics; a belief that is contrary to the official position of the American Medical Association.

Historically, society has found it necessary to employ legal controls to prevent the spread of certain types of illness that constitute a hazard to the public health. Drug addiction is such a hazard.

The successful and humane withdrawal of individuals addicted to narcotics in the United States necessitates constant control, under conditions affording a drug-free environment, and always requires close medical supervision.

The successful treatment of narcotic addicts in the United States requires extensive post-withdrawal rehabilitation and other therapeutic services.

The maintenance of stable dosage levels in individuals addicted to narcotics is generally inadequate and medically unsound and ambulatory clinic plans for the withdrawal of narcotics from addicts are likewise generally inadequate and medically unsound.

As a result of these conclusions, the American Medical Association



and the National Research Council oppose on the basis of present knowledge such ambulatory treatment plans.

These two organizations support (1) after complete withdrawal, follow-up treatment for addicts, including that available at rehabilitation centers, (2) measures designed to permit the compulsory civil commitment of drug addicts for treatment in a drug-free environment, (3) the advancement of methods and measures towards rehabilitation of the addict under continuing civil commitment, (4) the development of research designed to gain new knowledge about the prevention of drug addiction and the treatment of addicted persons, and (5) the dissemination of factual information on narcotic addiction.

STATEMENT OF THE BUREAU OF NARCOTICS

Mr. Henry L. Giordano as the Acting Commissioner of the Bureau of Narcotics issued the following statement recently relative to the Joint Statement of the American Medical Association and the National Research Council regarding the narcotic drug addiction problem in the United States:

"The Federal Bureau of Narcotics wishes to express its complete approval of the views contained in the Statement of the American Medical Association and the National Research Council. The Bureau of Narcotics believes that the American Medical Association-National Research Council statement clarifies a subject on which there has been widespread public and professional misunderstanding. The Bureau of Narcotics subscribes completely to the view that the federal law does not consider drug addiction a crime. The National Research Council and the American Medical Association have performed an outstanding public service which will greatly advance the joint efforts of the law enforcement agencies and medical-health organizations who are charged with the responsibility for dealing with the narcotic drug problem.

"The Bureau is pleased to note that the American Medical Association has re-affirmed its position opposing the establishment of community ambulatory clinics for the withdrawal of narcotics from addicts and the continuing maintenance of addicts on narcotics.

"The Bureau of Narcotics also supports the 5 measures set out in the last paragraph of the statement of the American Medical Association and the National Research Council which will provide addicted persons with the best possible rehabilitative treatment programs and reduce, and if possible, eliminate narcotic drug addiction."

Kentucky Medical Society Dedicates New Headquarters

Completely functional, modern and expandable are terms which best describe the new $150,000 headquarters building in Louisville which the Kentucky State Medical Association dedicated in May. Every major feature of the all-brick, one-story structure has been designed with an eye to maximum efficiency and expansion.

The executive wing, which includes a 1,000 square foot board room running the entire length of this wing, a president's office, conference room and efficiency kitchen unit, was specially planned to accommodate large meetings at headquarters office. The administrative section, which houses the staff, also has space for committee meetings, and in its 12 offices all of the association's administrative functions are carried out, including state journal and Woman's Auxiliary activities. Other features of the building: a spacious basement which doubles as a fallout shelter in case of an atomic emergency, and provides additional work and storage space as well; a parking lot for 20 cars which presently adjoins the building, with plenty of space for expanding facilities should the need arise.

Doctor Population Grows

The physician population of the United States and its possessions increased by about 4,500 in 1961, the American Medical Association recently reported.

A total of 8,023 first licenses to practice medicine and surgery were issued in 1961. Since approximately 3,500 physicians died during the year, the physician population increased by about 4,500, compared with a net gain of about 4,330 in 1960.

Of 8,714 applicants for licensure by written examination, 7,650 passed, while 1,064 (12.2 per cent) failed, the AMA reported.

In 1961, more than 3,600 foreign medical graduates were qualified directly from abroad by the Educational Council for Foreign Medical Graduates, the Council indicated. The number of foreign medical graduates taking the ECFMG examination abroad is now greater than the number taking it in the United States.

WSU Annual Clinic Day

Wayne State University College of Medicine's 94th Annual Alumni Reunion was held May 2 at the Sheraton-Cadillac Hotel. At the annual alumni business meeting, Herbert W. Devine, M.D., Detroit, was selected as president-elect.

Introducing the scientific program, Alexander Walt, M.D., Detroit, discussed "Diverticulitis of the Sigmoid Colon." This condition, he said, is getting to be a fairly frequent occurrence, not necessarily surgical at first, but as it progresses it becomes more so. Study and research and constant watching of the patient are essential.

"The Asymptomatic Pulmonary Nodule" was discussed by Raymond C. Read, M.D., Detroit, who illustrated a method of scanning these lesions in the chest and other parts of the body with radioactive procedures producing a chart, a picture, somewhat similar to x-rays.

"Has the Role of Radiotherapy Changed in Cancer of the Cervix?" was a discussion of the progress of this condition and what has been accomplished by modern methods of diagnosis and radiologic treatment. James E. Lofstrom, M.D., Detroit, was the lecturer. F. A. Simeone, M.D., Cleveland, discussed "Choice of Therapy for Patients With Arterial Disease."

Luncheon was held with Parke, Davis & Company as the host. The noon meeting included a discussion by Homer Strong, M.D., executive secretary and the two deans outlining the immediate prospects of building a $20 million Medical Center in the Wayne University area on ground that is now cleared. They expect construction will start in July. The whole project will take about 10 years and will bring the school up to a capacity of 200 students in a class.

In the afternoon, Arthur J. Vorwald, M.D., Detroit, discussed "Pulmonary Changes Provoked by Inhaled Atmospheric Pollutants," using charts, graphs and radiographic pictures.

"The Physician and Child: A Relationship as Seen by the Child Psychiatrist," was presented by Oscar B. Markey, M.D., Cleveland. This was a psychological and psychiatric study of the child and his growth, his disappointments, his ambitions and his frustrations.

Richard J. Bing, M.D., Detroit, talked about "Angina Pectoris: A Mysterious Symptom of a Mysterious Disease." He discussed what can be done, what has been done experimentally and pathologically in trying to determine the exact mechanism of the disease and its treatment. He says these people should get along for a long time in good condition with reasonable exercise and reasonable control, taking things easy but carrying on a useful life.

"Newer Antibiotics" by Harry Dowling, M.D., Urbana, Ill., discussed the development of the uses of the antibiotics for specific conditions. He said, one should study the patient, outlining the causative conditions and consider specifically which antibiotic might



be useful. They don't always have the effect, but if the right one is applied for the right condition, the results are outstanding. There are some antibiotics that patients become sensitive too, for which skin tests can be made. Sensitivity isn't usually easily discharged and one must watch those patients even for years. If they have been sensitized to some of these antibiotics in early life, they can carry that sensitization for a lifetime.

Allen R. Hennes, M.D., Detroit, reported on "Studies of Lipid Metabolism in Man with C 14 Labeled Precursors." He discussed the hydrocarbon drugs which can be built up in one phase or another, and made more complicated or add a new function. It is all more or less extremely technical physiological chemistry, but it is challenging.

There were 380 registered for the forenoon and afternoon sessions, the attendance holding well.

In the evening following the reception was the Annual Banquet with 448 attending. Ernest D. Gardner, associate dean, gave the greeting and some more information about the prospects. Clarence I. Owen, M.D., presided as toastmaster. Clarence B. Hilberry, president of Wayne State University, offered greetings and Chairman Owen offered recognition to the various classes which were having reunions, every five years from 1917 to 1957.

Then came the conferring of the golden anniversary diplomas to the class of 1912. There were 18 of them still living and all but two were at the meeting. Each one was called upon and a biographical sketch given. The diplomas were presented by Doctor Strong. Clarence L. Candler, M.D., Detroit, of the Class of 1912, responded.

C. Jackson France, M.D., Grosse Pointe, inducted the Class of 1962 into the Alumni Association. Duncan A. Cameron, M.D., Dearborn, Class of '33, honorary president, presented the class awards for scholarship and ability to Michael Rosenberg, sophomore, and Allen J. Telmos, junior. The senior award for internal medicine went to Marie N. Fly, '62, and the Alumni scholarship to Allen J. Telmos, '62. Honorary memberships were presented by the new president, Herbert W. Devine, M.D., to James E. Lofstrom, M.D., of the faculty department of radiology. Retiring President France presented the honorary membership to Arthur H. Smith, Ph.D.

Joins National Blue Cross

Harold G. Pearce, director of Michigan Blue Cross-Blue Shield enrollment division, is the new vice-president of the Blue Cross Association, national coordinating body for the 78 Blue Cross plans with headquarters in Chicago. As director of the Michigan plan's enrollment division, Mr. Pearce played a major role in the programming of Blue Cross-Blue Shield benefits for the automotive "Big Three" as well as other national accounts.

Wm. S. McNary, executive vice-president of Michigan Blue Cross said: "It is with both pride and regret that we announce Mr. Pearce's leaving for an appointment to a top administrative post with our national association in Chicago. His record with Michigan Blue Cross has been so outstanding, it was only a matter of time until he was tapped for work permanently in the broader field of our national Blue Cross organization."

Michigan Dentist Predicts Dental Prepayment Growth

The 13th National Dental Health Conference in Chicago recently heard a major address by Kenneth J. Ryan, D.D.S., Flint.

Doctor Ryan predicted to his fellow dentists that "15 million people will be under dental prepayment plans by 1970 and 30 million by 1975."

Doctor Ryan, a member of the ADA Council on Dental Health, admitted that his estimates were "an educated guess," but compared the projected growth of dental insurance with the expansion of health insurance.

The ADA reported that less than one million persons today are covered by commercial dental insurance and by dental service corporation programs. The service corporations are sponsored by state dental societies and are comparable to the Blue Cross-Blue Shield medical programs.

Most American dentists "are in favor of the development of the service corporation as the dental profession's plan," Doctor Ryan said.

He pointed out that there are now four operating state service corporations offering group dental programs and an additional 16 states are in the process of setting up such programs. "I am sure that 55 per cent of all the dentists in the country will be from service corporation states by 1963," he said.

Chest Physicians Elect

The Michigan Chapter of the American College of Chest Physicians at its recent meeting in Detroit elected as president, John L. Isbister, M.D., Lansing; vice-president, Victor A. Kelmenson, M.D., Detroit, and secretary-treasurer, James D. Fryfogle, M.D., Southfield.



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Calling Medical Assistants

The call is for medical assistants. The Michigan State Medical Assistants Society is seeking more members and more county units. Its basic objective is to improve the service of its members to physicians and to the public. The organization, therefore, can aid the medical profession particularly in the area of public relations.

The MSMAS has four broad society objectives:

To unite in an organization those persons who are employed in offices of members of the Michigan State Medical Society, hospitals approved by the American Hospital Association or accredited by the Joint Commission on Hospital Accreditation, and medical laboratories of the State of Michigan.

To inspire its members to render honest, loyal, and more efficient service to the profession and to the public which they service.

To render educational and informative services to its membership.

This organization is hereby declared to be non-profit. Any member or members attempting to organize this Society for the purpose of affiliation with any union thereby automatically forfeit their membership.

Twenty-three counties are presently members of MSMAS which is a component part of the American Association of Medical Assistants, Inc.

The MSMAS Member Counties include Allegan, Bay, Berrien, Branch, Calhoun, Detroit, Eaton, Genesee, Ingham, Jackson, Kalamazoo, Kent, Lenawee, Macomb, Marquette-Alger, Muskegon, Oakland, Ottawa, Saginaw, Shiawassee, St. Clair, Van Buren, and Washtenaw.

For information contact: Miss Cecile Rutan, President, Michigan State Medical Assistants Society, Hanover, Michigan.

Invites Cardiac Referrals

The Michigan Heart Association invites referrals to the Cardiac Work Evaluation Unit in Detroit. The Unit's concern is with the occupational potentialities of cardiac patients and was established as a pilot program a year ago with a grant from the Michigan Heart Association to the Rehabilitation Institute in Detroit. All patients must be referred to the Unit by a physician. To make referral or to obtain more information, write or call the Rehabilitation Institute, 261 Brady Street, Detroit 1, phone TEmple 3-4300, extension 261, or the Michigan Heart Association, 13100 Puritan, Detroit 27, phone 342-2100.



Leaders of two of the important ancillary organizations (especially helpful in the current King-Anderson struggle) are shown here at the 1962 County Secretaries-Public Relations Seminar conferring with one of the speakers. Left to right are Mrs. Clarence I. Owen, Detroit, president of the Woman's Auxiliary to MSMS; Miss Cecil Rutan, Hanover, president of the Michigan State Medical Assistants Society, and David Kahn, M.D., Lansing, who addressed the seminar.

Michigan Host to National Medical Assistants Meeting

A special event this fall in Detroit in connection with the various medical meetings will be the Annual Convention of the American Association of Medical Assistants.

The Michigan State Medical Assistants Society is honored to be hostessing the national meeting this year. And this fact alters the usual schedule for the MSMAS meeting, which will be condensed this year to one day.

The AAMA will be in session at the Statler Hilton Hotel from September 26 to 30. The MSMAS will hold its 13th annual meeting September 27, also at the Statler Hilton.

Blues Form Member Council

Community leaders have launched the Grand Rapids Blue Cross-Blue Shield "Member Council" as the third in a projected statewide network. Expansion to the Furniture City followed success of pioneer Councils developed recently in Lansing and Saginaw.

The network of Member Councils is aimed at developing independent forums to establish closer contact between Blue Cross-Blue Shield and its members at community levels.



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94 per cent effective in a study of 510 cases.

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Dean Lauds Wayne County Auxiliary

Four Michigan students attending The University of Michigan Medical School will have their tuition next semester paid through a scholarship fund established by the Woman's Auxiliary to the Wayne County Medical Society. They are Walter M. Laidlaw of Tawas City; Philip L. Parker of Charlotte; Barbara L. Sickmiller of Detroit; and Phyllis M. Hughes of Detroit.

Dean William N. Hubbard, Jr., M.D., of the U-M Medical School, congratulated the Auxiliary for its unique efforts "in providing means by which the health of our people can be strengthened."

The Wayne county group contributed $1,240 to the fund as a result of the auxiliary's activities during the past year.

Doctor Hubbard said the fund will provide grants-in-aid to deserving and needy students "who will have the double satisfaction of being recognized as scholarship students and also knowing that the funds were contributed by the Woman's Auxiliary of the Wayne County Medical Society."

Pick MHS Leaders

Fifteen members recently were named to the Michigan Hospital Service board of trustees. The 41-member governing body of Michigan Blue Cross is composed of 14 members representing the general public, 21 representing the hospital and six representing the medical profession.

The two newly-elected members were Kenneth Shouldice, Sault Ste. Marie, as a hospital representative, and Eugene Elzinga, M.D., Marquette, as a medical representative.

Re-elected as public representatives were Hubert Bates, Lansing; Robert E. Smith, Fowlerville; and Lawrence Gettlinger, John W. Paynter, and John P. Sullivan, all three of Detroit.

Six re-elected as hospital representatives included George Cartmill, Detroit; Owen Pinkerman, Royal Oak; C. Tiffany Loftus, Benton Harbor; John Rasmussen, Hillsdale; Walter R. Doud, Saginaw, and L. R. Faust, Port Huron.

Re-elected as medical representatives were William Reveno, M.D., Detroit, and Herbert W. Harris, M.D., Lansing.

North Central Section AUA Meets in Detroit in October

The Detroit branch of the American Urological Association will act as host for the 36th Annual Meeting of the North Central Section at the Sheraton Cadillac Hotel in Detroit, October 10-13.

Following is a roster of committee leaders as reported by the Detroit Branch:

Local Arrangements—Reed Nesbit, M.D., Honorary Chairman, and Harry E. Lichtwardt, M.D., General Chairman

Secretary-Treasurer—Murray Mahlin, M.D.

Financing and Auditing—Dale Drew, M.D., Chairman

Pre-Registration and Housing—George Reno, M.D., Chairman

Convention Registration—George R. Sewell, M.D., Chairman

Meals and Menu—Robert P. Lytle, M.D., Chairman

Entertainment—Benjamin W. Dovitz, M.D., Chairman

Exhibits—Albert J. Albrecht, M.D., Chairman

Projection, Screens, Pointers, Lights and View Boxes—Guy W. Sewell, M.D., Chairman

Transportation—Joseph Caputo, M.D., Chairman

Golf—John J. Dudek, M.D., Chairman

Signs, Badges and Printing—Maitland Stewart, M.D., Chairman

Reception—William L. Sherman, M.D., Chairman

Public Relations—Jack Lapides, M.D., Chairman

Scientific Meeting—Hazel L. Miller, M.D., Chairman

Red Cross Reports

Over 2,500,000 pints of blood were collected by the American Red Cross during its annual report year which ended June 30, 1961. Reported also was the distribution of 29,300 units of serum albumin, 3,100 of fibrinogen and 1,148,300 units of gamma globulin.

It also announced in the 1961 report that negotiations were completed with the American Association of Blood Banks by which a donor giving blood in any Red Cross Blood Center, or in a blood bank participating in the Association, may have the blood sent or credited to a patient anywhere in the United States.



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1. Meyers, G. B.: Ind. Med. & Surg. 26:3, 1957. 2. Murray, R. J.: N. Y. St. J. Med. 53:1867, 1953.

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Red Cross Refresher Courses Planned

Several one-day review and refresher courses are planned for the coming months by the American National Red Cross for Red Cross course instructors.

Scheduled are: August 24, Isabella County Chapter, Mt. Pleasant; September 5, Lenawee County Chapter, Adrian, and October 2, Kent County Chapter, Grand Rapids. A Leadership Workshop is scheduled for October 3, also at Grand Rapids.

Boost Medical-Surgical Nursing

The W. K. Kellogg Foundation, Battle Creek, has announced a $251,262 grant to be used to inaugurate a graduate program in medical-surgical nursing next fall at The University of Michigan. Plans call for a four-semester course leading to the Master of Science degree. The grant will be used for faculty salaries, equipment, instructional supplies and administrative and operating expenses.

Industry Helps

The Senior Resident in Surgery at the Saginaw General Hospital recently was able to take a course at the University of Minnesota, in Minneapolis entitled "Surgery for Surgeons."

This opportunity was made possible by a grant from the Carling Brewing Company of Frankenmuth. This generous grant is important due to the fact that it is one of the very first examples of industry aiding medical education on the local level.

Thanks to WMSB-TV

One of the many television stations across the nation recently carrying a special "You and Your Doctor" series was WMSB-TV from the Michigan State University campus.

"You and Your Doctor," a series of two half-hour programs featured the distinguished actor and narrator Alexander Scourby. Made possible through a grant from the American Medical Association, "You and Your Doctor" was broadcast on the National Education Television network of 58 non-commercial stations.

Communications Needed to Spur Scientific Gains

The continuation of sweeping scientific advances of the past 20 years demanded good communication, Associated Press science reporter Alton L. Blakeslee said in presenting the recent annual Yates lecture, sponsored by the Michigan Tuberculosis Association and the Michigan State University School of Journalism.

"Today we need more and more ideas, and this involves communication," he said.

"We need ideas to find solutions to cold war crises, the problems brought on by exploding national and world populations, problems of hunger, crime, water shortages, intolerances and adequate education, and all this involves communications."

The AP writer forecast rapid strides in control of cancer, heart disease and mental illness, in surgical transplanting of organs, and in understanding of heredity.

This expanding knowledge of nature, he declared, constitutes a responsibility for persons "who wish to try to describe this world we live in."

"To some extent," he said, "this is a responsibility and function of journalism, if we wish to define journalism as something more than the recording of who was seen with whom in what saloon."

Blakeslee said scientists, physicians and educators have a responsibility for telling the story of their work.

"It is especially important," he pointed out, "that science be understood if the public is going to continue supporting science and scientific training in a technological society which is becoming increasingly dependent upon science and technology for its survival."

The success of scientists in informing the public depends upon the art of communication, he observed. A main failure, he said, is the failure to talk in clear language.

What's It Worth?

By Edward R. Annis, M.D.

This little girl of seven had a tummy ache, but her family didn't pay much attention. When we saw her she had a ruptured appendix and a temperature of 104 degrees. We put her in the hospital and took out her appendix, sucked out some of the peritonitis resulting from it, put some medicine in, gave her medicine in the veins for a couple of days.

She had no abnormal temperature after three days, then was put on medicine by mouth and left the hospital on the seventh or eighth post-operative day.

The drugs must have cost $30-$40, maybe more, maybe less.

But I'd like anybody to ask the parents of that youngster how much they were worth.

We don't ask how much does it cost, but how much is it worth?

MICHIGAN DEPARTMENT OF HEALTH
ALBERT E. HEUSTIS M.D., State Health Commissioner

Mass Polio Immunization and Other Immunization

With the availability of two licensed vaccines against paralytic polio, some questions have been raised regarding the vaccine of choice. Proponents of the presently available live virus oral vaccine claim, as one of its most desirable features, an adaptability to mass usage. Some people suggest that the oral vaccine may make it possible to eliminate paralytic poliomyelitis through community-wide mass vaccination programs.

It is the position of the Michigan Department of Health that special mass immunization programs should be considered only when the immunization status of the infant and preschool groups is significantly below 80 per cent. We heartily agree with the December 1961 recommendation of the American Medical Association that immunization surveys be conducted before embarking on community-wide immunization programs. Such surveys can reveal the immunization status and help determine whether or not a mass program is indicated. In addition, such a survey will enable concentration on those segments of the population where the immunization level is especially low.

Consideration for the use of either Salk or Sabin vaccine should be tempered with the fullest understanding of their limitations. Salk vaccine has had wide acceptance and use in this country. Sabin vaccine has been extensively used throughout the world, but on only a limited basis in the United States. As a result of the total experience, some of its limitations are evident. All facts must be weighed as regards the vaccine to be used if we are to reach the full objective to eliminate paralytic poliomyelitis from our communities. Several of oral vaccine's limitations and the community obligation incurred in rendering a mass program follow:

The presence of any enteric virus infection, whether evident or not, may interfere with the effectiveness of oral vaccine. Since enteric viruses are most widely prevalent in the summer months, any organized community-wide programs using oral vaccine are best undertaken during the late fall, winter, and spring months of the year, except in the face of a threatened epidemic. Our laboratory has already reported the first isolation of a Coxsackie A-9 for the 1962 season.

The oral Sabin vaccine itself is an enteric virus. Immunity to the individual results from its successful infection of the intestinal tract; therefore, interference may also occur if the spacing between the three types of oral vaccine is inadequate. A minimum of six weeks between doses of oral vaccine is recommended.

Because of the possibility of existing enterovirus interference we may not, therefore, know whether the procedure was effective in every individual receiving oral vaccine. This is especially the case when enterovirus infections are prevalent.

To achieve adequate protection against paralytic poliomyelitis, the individual must have completed a basic series of either oral or inactivated (killed) poliomyelitis vaccine. This will be necessary for those entering school in Michigan for the first time this fall, since one vaccine does not necessarily complement the other, and they are not interchangeable in a series. In this instance, and for many other purposes, an adequate record system is as important in mass procedure as in the private physicians' offices. This should state as a minimum the previous immunization history to polio as well as to other diseases.

Any mass program must have a definite plan for continuation of protection to those born subsequently; otherwise, there will be an increasing number of susceptibles in our population and the eradication of paralytic poliomyelitis from our communities cannot logically be achieved. One manufacturer of oral vaccine suggests booster doses will be necessary every two to four years.

Immunization, for protection against paralytic poliomyelitis and other diseases, for which we have effective antigens, is a medical procedure which this department believes can best be accomplished, for most people, in the offices of the family physician. This department has for many years supplied antigens for those procedures, without charge, for use by physicians in their practice. It has, however, been repeatedly demonstrated that some elements and groups of our population are not adequately reached through physicians' offices. We must, therefore, place special emphasis on vaccination of the unimmunized and inadequately protected. This emphasis must be placed not only on

(Continued on Page 924)

Pathology Comment

Items published here are provided by the Michigan Pathological Society

Interpretation of Laboratory Results

Laboratory results are, of course, only meaningful when interpreted by the physician familiar with the patient. Identical laboratory reports may have entirely different meanings for two patients.

Testing procedures vary greatly in dependability. For some clinical laboratory tests there are several alternative methods with different degrees of reliability. For other measurements there may be only one acceptable procedure. In any case the physician should be aware of the degree of reliability he can expect, and where several choices are open to him, he can choose the procedure having the most appropriate degree of reliability. In many cases the shorter, less expensive methods are entirely adequate for clinical purposes.

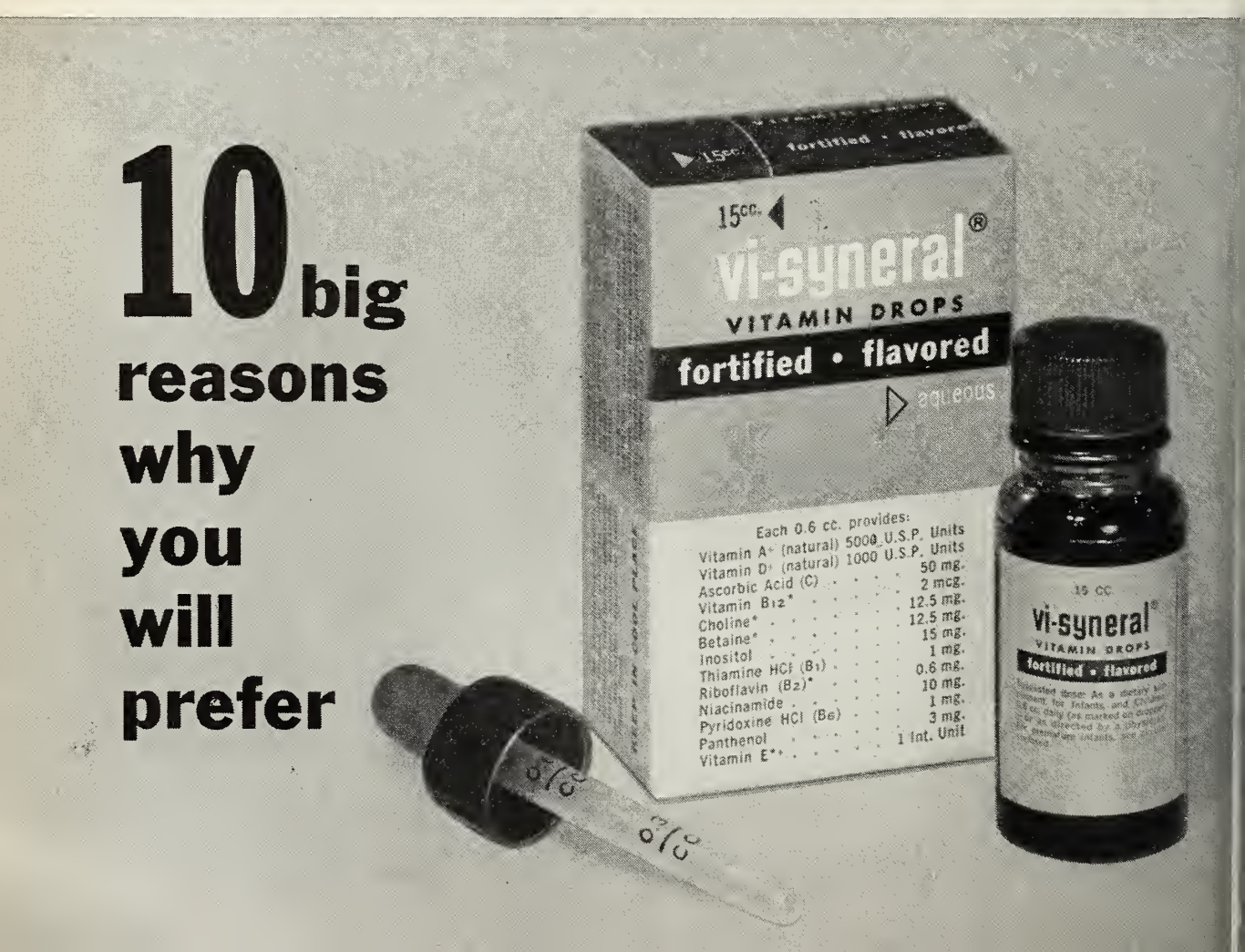
The human element is another important factor in laboratory results. No matter how refined the procedure, even the most skilled operators cannot produce absolutely identical results. Consequently the evaluation of test results is dependent on awareness of variabilities and procedural limitations that may be encountered even with the best technique. Your clinical pathologist should be consulted when the selection of a test or its interpretation is not clear.

Variation in Measurements[1]

Two criteria of exactitude are usually used in appraising variability of laboratory measurements—these are *accuracy* and *reproducibility* (precision). A distinction between these two concepts is useful in practical interpretation of laboratory results.

Accuracy

The ability of tests to reflect *true* values of specimens is termed *accuracy*. If a solution of glucose con-



taining 100 mg. per 100 ml. is divided into many samples, all analyzed separately by a laboratory over a period of months, the results might yield an average of 120 mg. per 100 ml. and individual values ranging from 80 to 160 per 100 ml. Inasmuch as the degree of accuracy reflects the deviation from the true value of 100 mg. per 100 ml., it may be said to average plus 20 mg. and to range from minus 20 mg. to plus 60 mg. per 100 ml.

Reproducibility

Frequently the clinician is more interested in the *reproducibility* or *precision* of a test than in the degree of accuracy attainable. Reproducibility reflects the capacity to yield the *same* value (which may or may not be the true value) for a given concentration of substance. In a glucose tolerance test, for example, absolute accuracy of the values for blood glucose at each interval is not required, since changes in the values plotted on the tolerance curve are the primary concern. To be comparable, however, each value must be reproducible.

Close correspondence of laboratory estimation and true value is highly desirable in clinical diagnosis because it results in the test becoming a more reliable diagnostic and prognostic adjunct. A high degree of accuracy permits valid comparison of results from one laboratory to another. This not only helps the diagnosis and evaluation of lab reports from several laboratories, but also helps to eliminate the variance in clinical literature.

High reproducibility of a test conducted by a single laboratory may enable the clinician to establish a set of normal values on the basis of experience. The test result for a given patient can then be compared against that "normal range." In addition, results of repeated tests in the same patient are reliable enough to permit evaluation of progressive diseases or of the results of therapeutic measures.

Upper and Lower Limits of Normal

Upper and lower limits are usually set to include 95 per cent of the normal population—the ± 2 standard deviation limits. A value outside of these limits indicates an abnormality 19 out of 20 times. Using quality control methods, laboratories can now determine the unavoidable variation of each method and calculate the "*significant change limit.*"

Reference

1. Copeland, B. E.: Standard deviation. A practical means for the measurement and control of the precision of clinical laboratory determinations. Amer. J. Clin. Path., 27:551, 1957.

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Michigan Authors

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Bruce H. Stewart, M.D., and **Thomas P. Haynie, M.D.,** Ann Arbor, "Critical Appraisal of the Renogram in Renal Vascular Disease," *Journal of the American Medical Association,* May 12, 1962.

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Brief and to the Point

REHABILITATION GRANT—The W. K. Kellogg Foundation, Battle Creek, announces a grant of $35,900 to enable the Rehabilitation Medical Center at Sparrow Hospital in Lansing to employ a part-time medical administrator, a full-time vocational coordinator, and to cover the costs for a medical stenographer and other program expenses over a three-year period. During 1961, more than 1,100 persons visited the Center in the Edward W. Sparrow Hospital. A unique feature of this program is the integrated relationships between the Center and Sparrow Hospital. Rehabilitation and hospital authorities have advocated the development of strong ties between acute general hospitals and rehabilitation—long-term patient care programs. The Lansing experiment is regarded as an outstanding example of such cooperation. Richard Pomeroy, M.D., Lansing, has been appointed as part-time medical director.

* * *

THREE MICHIGAN WINNERS—The winning photographs and illustrations in the Fourth Annual SAMA-Eaton Medical Art Salon were announced May 9, at the 12th Student American Medical Association Convention at the Mayflower Hotel, Washington, D. C. The prize winners were displayed in a special traveling exhibit which will be made available to hospitals and medical schools throughout the country following the convention. Outstanding contributions in each of three categories: Medical Photography (black and white and color); Photomicrography and Medical Illustration, were presented with the Eaton Awards, provided by Eaton Laboratories Division of The Norwich Pharmacal Company.

Michigan won First ($250)—"Retrolental Fibroplasia-Abortive Ocular Sinister," Michael R. Deitz, M.D., University Hospital, Ann Arbor.

Third ($50)—"Proctology: Exposure of a Redundancy," Casimir Jamroz, M.D., Borgess Hospital, Kalamazoo.

Honorable Mention—"Colostrum Cell Carcinoma," Michel H. Aboumrad, M.D., Henry Ford Hospital, Detroit.

* * *

ENDS LONG SERVICE—After nearly 35 years of service in Michigan's state hospitals, T. W. Thompson, M.D., retired June 20 as medical superintendent of Newberry State Hospital. Dr. Thompson joined the staff of Traverse City State Hospital in 1927 and was appointed assistant medical superintendent there in 1931. He was appointed director of the Sault Ste. Marie State Hospital in 1946 until his appointment to Newberry in 1950.

* * *

RETIRES—The director of the University Health Service was honored recently on his retirement from Wayne State University. Irwin W. Sander, M.D., who retired on December 1, 1961, was among 15 university employes honored at a reception.



HONORED—Hermann Pinkus, M.D., Monroe, has been named assistant secretary general of the XII International Congress of Dermatology, in Washington, D. C., September 9 to 15. Five dermatological organizations in the United States and Canada are hosts for the Congress to be held in the United States for the first time in 55 years.

* * *

HONORED BY WSU—A Wayne State University Alumni Award has been presented to Sarah Schooten, M.D., Detroit. Five such awards were given May 5, at a WSU Reunion program. The citation pointed out that Dr. Schooten, a pediatrician and diagnostician for the City of Detroit, has been on the board of the Sarah Fisher Children's Home, the Edwin Denby Children's Home and the Sackrider Home for underprivileged children in Fraser. Her Wednesday evenings are donated to the St. Francis Cabrini Clinic in Detroit's Corktown. Born in Rangoon, India, the daughter of Methodist missionaries, Doctor Schooten is the widow of a Dutch sea captain who was drowned when his ship was torpedoed by a German submarine in World War I.

* * *

CHOSEN—H. Marvin Pollard, M.D., Ann Arbor, is the new treasurer of the World Organization of Gastroenterology, elected during an international meeting in Munich. The WOG convention heard reports on research and clinical findings from Drs. Robert J. Bolt, Keith S. Henley and Ignacio de Larrechea, all of Ann Arbor.

* * *

WAYNE FACULTY CHANGES—Two appointments and a promotion on the faculty of the College of Medicine at State University have been made by Dr. Gordon H. Scott, dean of the College of Medicine and vice president for medical college development. New faculty members are Gordon H. Anderson, M.D., instructor of physiology and pharmacology, and Alexander J. Walt, M.D., assistant professor of surgery. Bennie Zak, M.D., was promoted to associate professor of pathology. Retiring is Daniel E. Hasley, M.D., professor of bacteriology, who joined the College of Medicine faculty in 1924. In 1957, Dr. Hasley was presented the College's Alumni Award.

* * *

GASTROENTEROLOGY COURSE—The annual course in Postgraduate Gastroenterology of the American College of Gastroenterology will be given at the Morrison Hotel, Chicago, November 1-3. A clinical session will be held at the Cook County Hospital. For further information, write the American College of Gastroenterology, 33 West 60th Street, New York 23, N. Y.

* * *

"RARELY CANCEROUS"—E. Richard Harrell, M.D., Ann Arbor, speaking on a state-wide broadcast on "Prescription For Health" co-sponsored by the U-M Broadcasting Service and the Michigan State Medical Society, said chances are remote that cancer will develop from birthmarks.

* * *

MICHIGAN EVENT—Fifty radiologists recently met at The University of Michigan Medical Center for the biennial meeting of the Fred Jenner Hodges Radiological

(Continued on Page 916)



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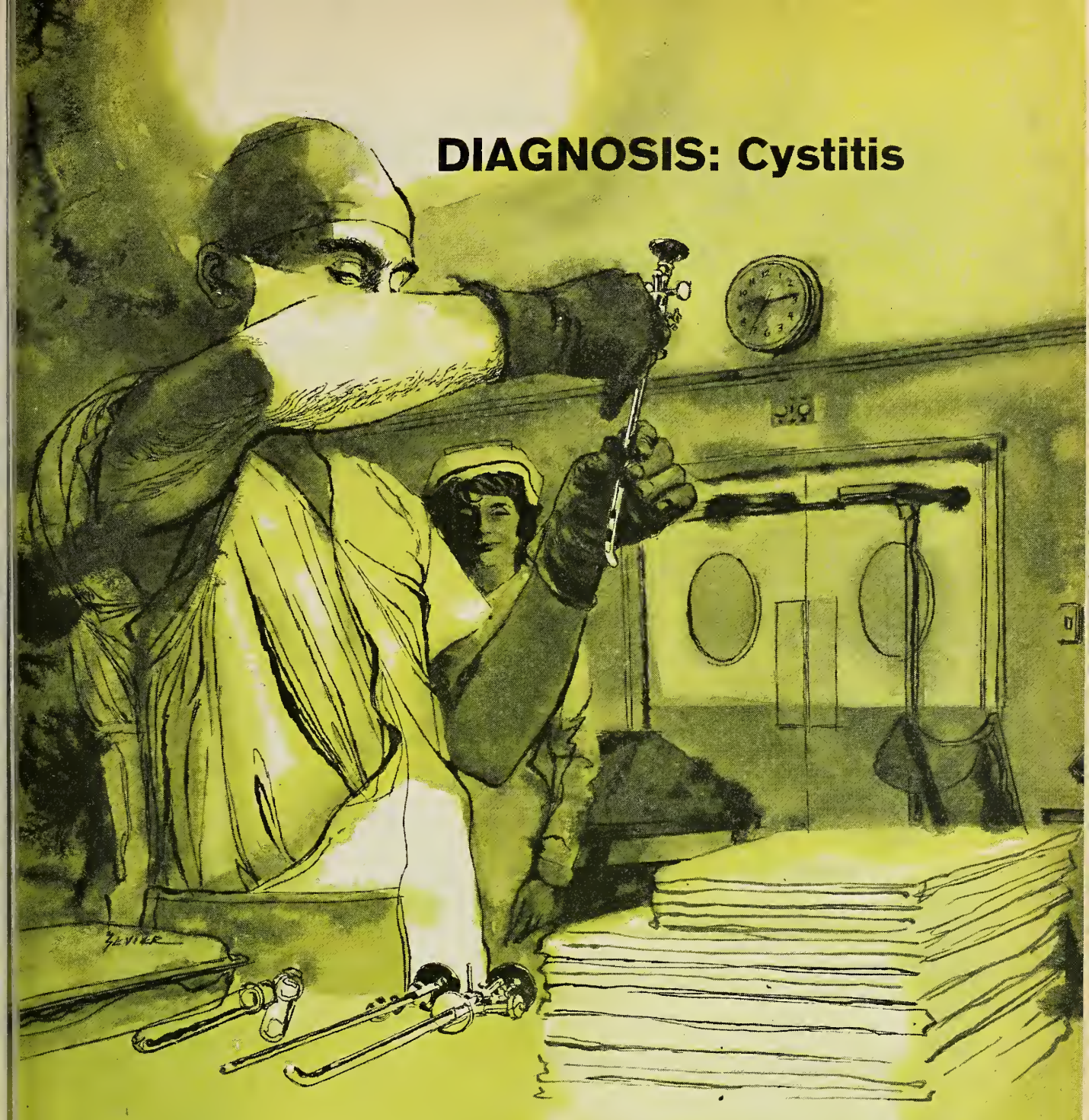
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(Continued from Page 914)

Society. The Society includes 120 doctors who took x-ray training at University Hospital under Fred J. Hodges, M.D. A highlight was a lecture by Harold Peterson, M.D., Minneapolis, on methods of diagnosing back pain by x-ray.

* * *

SEEK TEACHERS OF DEAF—Wayne State University has a dozen scholarships available for qualified students preparing to teach the deaf. Five are for undergraduates and are worth $1,600 for the senior year. The other seven pay $2,000 for one year of graduate study. The scholarships are financed by the U. S. Office of Education. Information may be secured from the Department of Special Education and Vocational Rehabilitation, College of Education, Wayne State University, Detroit 2.

* * *

VACCINE READY—Four-and-a-half-million doses of live oral polio vaccine have been purchased from Wyeth Laboratories for emergency use by the United States Public Health Service. The vaccine will be stockpiled at Wyeth's biological laboratories at Marietta, Pa., held in reserve for use in the study and control of polio epidemics. U. S. Surgeon General Luther L. Terry, explains that the emergency vaccine is available upon request by public health authorities.

* * *

MOVE COMPLETED—For the first time in more than 20 years, the entire collection of the National Library of Medicine is once again under one roof. Materials from the old building and from the History of Medicine Division in Cleveland, have been combined.

DRIVER'S DEFECTS—During 1961, physician's statements were requested as to fitness for licensure from a larger number of individuals than in previous years. 4,200 cases were reported, 50 per cent being for vision and the other 50 per cent were for other physical defects.

* * *

SPEAKER—Sol C. Grossman, M.D., Detroit, was discussant of a paper by Julian Stamm, M.D., of New York, entitled: "An Illuminating Hour," at the annual meeting of the American Psychoanalytic Association in Toronto, Canada.

* * *

VIRGIN ISLANDS STUDY—Eight faculty members of The University of Michigan School of Public Health will study health conditions in the Virgin Islands this summer at the invitations of the U. S. Public Health Service. The U-M team will work directly with their professional counterparts in the Territorial Health Department to explore the problems and the present measures of disease control. The University of Michigan team includes Frank W. Reynolds, M.D., and Vlado A. Getting. M.D.

* * *

HONORARY MEMBER—C. D. Barrett, M.D., director of the Monroe County Health Department since 1953, received an honorary membership in the Michigan Public Health Association at the Association's annual conference. Before going to Monroe, Dr. Barrett served as director of the Division of Communicable Disease Services of the Michigan Department of Health from 1931 to 1938 and as director of the Ingham County Health Department from 1938 to 1946. Dr. Barrett also was director of the Wayne County Health Department from 1947 to 1949.

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PRAISED—Frederick Trautman, M.D., of Frankfort, recently received a certificate of appreciation as medical advisor for the local selective service board.

* * *

SURVEY PROMOTED—Because bilirubin measurements are of great importance in making therapeutic decisions, the College of American Pathologists is conducting a National Survey of techniques and results of bilirubin determinations throughout the United States. An invitation to participate will be mailed during July to the laboratory directors of all hospitals in the United States and to directors of private laboratories. Any members who wish to participate may do so by requesting an application from the College of American Pathologists, 2115 Prudential Plaza, Chicago 1, Illinois.

* * *

RECEIVE CERTIFICATES—The American Board of Obstetrics and Gynecology has issued certificates for its specialty for the following physicians in Michigan: Andrew F. Caughey, Jr., Detroit; William M. Chavis, Detroit; Owen J. Deuby, Detroit; Ruth Marjorie Ellis, Midland; William Carter Gilkey, Adrian; Robert Lee Green, St. Joseph; Elaine Mary Hacker, Grosse Pointe Woods; George Peter Halekas, St. Clair Shores; Allen Lewis Hayes, Detroit; Duane Bruse Heilbronn, Saginaw; William Charles Heitsch, Lapeer; John Wendell Kavanagh, Kalamazoo; George Hermann Klutke, Dearborn; Richard A. Kutcipal, Ann Arbor; Eugene William Mauch, Lincoln Park; Mario Anthony Petrini, Detroit; Anthony T. Salvaggio, Detroit; Joseph Seltzer, Detroit; Ernest G. Sheehan, Grand Rapids, and Rudolph Archie Wyatt, Detroit.

* * *

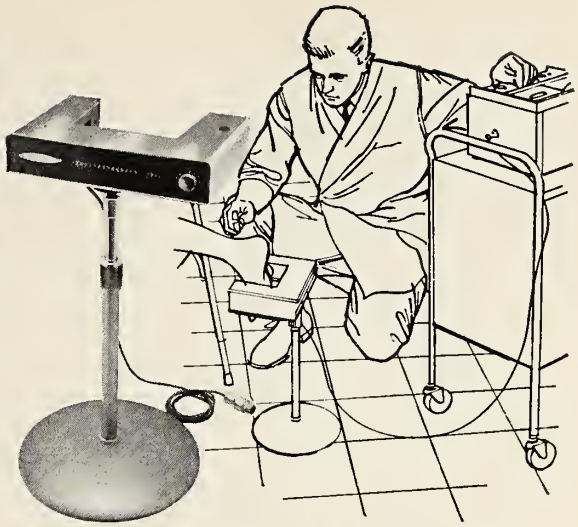
EXPERIMENT—A new concept of hospital patient care is to be thoroughly tested over the next three years through the cooperation of the W. K. Kellogg Foundation, the McPherson Community Health Center of Howell and the University of Michigan Business School. A three-year grant of $90,750 by the W. K. Kellogg Foundation to the Howell Hospital will enable McPherson Community Health Center to undertake an experimental program "designed to demonstrate the complete concept of progressive patient care as applied in a relatively small hospital." The 88-bed nonprofit McPherson Community Health Center plans to spend $339,500 raised locally for necessary additional facilities.

* * *

CANCER CONFERENCE—An Institute on Cancer Control will be a new venture of the U-M School of Public Health, June 25-30 at Ann Arbor. Frank W. Reynolds, M.D., institute chairman, expects 75 to 80 to attend. They will include public health physicians, nurses, health educators and executives of cancer organizations from states as far away as Hawaii, Florida and Alaska.

* * *

ANNOUNCE COURSES—The Wayne State University College of Medicine reports two continuing education courses—Rheumatology, October 24, and Metabolism, October 25, both at the Wayne County Medical Society Auditorium.



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MEDICAL MEETINGS, USA

August

AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS, Palmer House, Chicago, Aug. 30-Sept. 8. Miss Eleanor F. Larson, 445 N. Lake Shore Dr., Chicago 11, Executive Secretary.

NATIONAL MEDICAL ASSOCIATION, Hotel Sherman, Chicago, Aug. 13-16. John T. Givens, M.D., 1108 Church St., Norfolk 10, Va., Executive Secretary.

September

AMERICAN ASSOCIATION OF MEDICAL ASSISTANTS, Annual Convention, Statler-Hilton Hotel, Detroit, September 26-30.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS (members and invited guests), The Homestead, Hot Springs, Va., Sept. 6-8. Clyde L. Randall, M.D., 100 Meadow Road, Buffalo 16, N. Y., Secretary.

AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS, DISTRICT VIII, Washington Athletic Club, Seattle, Sept. 9-12. William O. Thomas, Jr., M.D., 1735 N. Wheeler Ave., Portland 17, Ore., Secretary.

AMERICAN COLLEGE OF SURGEONS, Ohio Chapter, Pick-Ohio Hotel, Youngstown, Ohio, Sept. 14-15. Tom L. Lewis, M.D., 350 E. Broad St., Columbus, Ohio, Secretary.

COLLEGE OF AMERICAN PATHOLOGISTS, Palmer House, Chicago, Sept. 1-4. Arthur H. Dearing, M.D., Room 2115, Prudential Plaza, Chicago 1, Executive Director.

MICHIGAN STATE MEDICAL SOCIETY, Sheraton Cadillac, Detroit; House of Delegates, September 23-24-25 Annual Scientific Session, September 26-27-28; D. Bruce Wiley, Secretary, Post Office Box 152, East Lansing.

October

AMERICAN ACADEMY OF PEDIATRICS, Palmer House Chicago, Oct. 27-Nov. 1. E. H. Christopherson, M.D., 180 Hinman Ave., Evanston, Ill., Executive Director.

AMERICAN CANCER SOCIETY, Biltmore Hotel, New York City, Oct. 22-23. R. N. Grant, M.D., 521 W. 57th St., New York 19, Director of Professional Education.

AMERICAN COLLEGE OF GASTROENTEROLOGY The Morrison, Chicago, Oct. 28-31. Daniel Weiss, 33 West 60th St., New York 23, Executive Director.

AMERICAN COLLEGE OF SURGEONS, CLINICAL CONGRESS, Atlantic City, Oct. 15-19. William E. Adams M.D., 40 E. Erie St., Chicago 11, Secretary.

AMERICAN HEART ASSOCIATION, INC., Sheraton Cleveland Hotel, Cleveland, Oct. 26-30. Rome A. Betts, 44 East 23rd St., New York 10, Executive Director.

AMERICAN MEDICAL ASSOCIATION FIRST NATIONAL CONGRESS ON MENTAL ILLNESS AND HEALTH, Palmer House, Chicago, Oct. 4-6. For information write: Council on Mental Health, American Medical Association, 535 N. Dearborn St., Chicago 10.

AMERICAN MEDICAL WRITERS' ASSOCIATION Sheraton Park Hotel, Washington, D. C., Oct. 12-13. John Sargeant, 1211 Cathedral St., Baltimore 1, Local Arrangements Chairman.

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Hotel, Washington, D. C., Oct. 2-5. C. Allen Good, M.D., Mayo Clinic, Rochester, Minn., Secretary.

AMERICAN SOCIETY OF ANESTHESIOLOGISTS, INC., Statler Hilton Hotel, New York City, Oct. 21-26. John W. Andes, 515 Busse Highway, Park Ridge, Ill., Executive Secretary.

ASSOCIATION OF MEDICAL ILLUSTRATORS, Park Shelton Hotel, Detroit, Oct. 1-3. Miss Rose M. Reynolds, University of Nebraska College of Medicine, 42nd and Dewey Ave., Omaha 5, Neb., Corresponding Secretary.

CLINICAL ORTHOPAEDIC SOCIETY, INC., Hotel Statler, Detroit, Oct. 4-6. Lyman Smith, M.D., 1186 Dundee Ave., Elgin, Illinois, Secretary-Treasurer.

INDIANA STATE MEDICAL ASSOCIATION, French Lick-Sheraton Hotel, French Lick, Oct. 8-10. James A. Waggener, 3935 N. Meridian St., Indianapolis 8, Ind., Executive Secretary.

November

AMERICAN ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY, Las Vegas, Convention Center, Las Vegas, Nev., Nov. 4-9. Dr. W. L. Benedict, 15 Second St., S.W., Rochester, Minn., Executive Secretary-Treasurer.

AMERICAN COLLEGE OF CHEST PHYSICIANS (Interim Session), Ambassador Hotel, Los Angeles, Nov. 24-25. Murray Kornfield, 112 E. Chestnut St., Chicago 11, Executive Director.

AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS, DISTRICT V, Indianapolis, Nov. 8-10. John D. Gordinier, M.D., Owens Medical Center, Suite F., 4122 Shelbyville, Louisville 7, Ky., Secretary.

AMERICAN MEDICAL ASSOCIATION, CLINICAL MEETING, Los Angeles, Nov. 25-28. F. J. L. Blasingame, M.D., 535 N. Dearborn, Chicago 10, Executive Vice-President.

AMERICAN MEDICAL WOMEN'S ASSOCIATION, Ambassador Hotel, Los Angeles, Nov. 29-Dec. 2. Jessie Laird Brodie, M.D., 1790 Broadway, New York 19, N. Y., Executive Director.

MEDICAL SCHOOLS ASSISTED

American physicians contributed more than $4,700,000 to the nation's medical schools last year. The AMA reports physicians gave $1,303,161.10 through its Education and Research Foundation and $3,428,413.09 in direct contributions to the schools, for a grand total of $4,731,574.19.

The AMA said that since its Foundation was established in 1951, physicians have donated more than $11,500,000 through it. Money contributed to the Foundation may be designated for a specific medical school. Contributions not designated are divided equally among the country's 86 schools.

UNIFORM TB PROTECTION

The nation's school children are receiving far from uniform protection against tuberculosis, despite the availability of "effective eradication procedures," a survey by the American School Health Association disclosed on July 2, 1962.

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IN MEMORIAM

GEORGE H. ANDRIES, M.D., forty-eight, Detroi gynecologist and obstetrician, died May 16, 1962.

A native of Detroit, Doctor Andries was a graduate o the University of Detroit and Wayne State University Col lege of Medicine. He was president-elect of the Providenc Hospital staff and also was on the staffs of St. John's anc Harper Hospitals.

He was a diplomate of the American Board of Ob stetricians and Gynecologists, a founding fellow of th American College of Obstretricians and Gynecologists, anc a member of the American College of Surgeons.

FREDERICK D. GOUDIE, M.D., forty-six, Detroi physician, died May 4, 1962.

Doctor Goudie, a native Detroiter, attended Denison Uni versity and did graduate work at the University of Michiga and Wayne State University College of Medicine.

He was a member of Sigma Nu and Sigma Xi fraternitie and of the Phi Beta Pi Medical Society.

JULIUS A. GRAHAM, M.D., sixty-seven, Detroi physician for more than 20 years, died May 25, 1962.

A native Jamaican, Doctor Graham came to the Unite States in 1919 and practiced pharmacy in New York City Later he was graduated from Wilberforce University in Ohi and Meharry Medical College, Nashvlle, Tennessee.

EDGAR F. IMTHUN, M.D., fifty-nine, Grand Ledg physician for 31 years, died May 19, 1962.

A native of Bellevue, Kentucky, Doctor Imthun was graduate of the University of Cincinnati in 1928 and interne in Toledo. He was on the staffs of Sparrow and St. Law rence Hospitals, Lansing, and Hayes-Green-Beach Hospita Charlotte. He was a member of Phi Chi Medical fraternit

ELBERT A. MARTIN, M.D., seventy-nine, Detro physician, died May 26, 1962.

In private practice in Detroit for more than 50 year Doctor Martin was a graduate of Wayne State Universit College of Medicine. He was medical director of the poli and firemen retirement system. He was a life member the Michigan State Medical Society.

BURTON G. McGARRY, M.D., eighty-six, Howe died May 9, 1962.

Prior to coming to Howell in 1946 at the time of h retirement, he had practiced medicine in Fenton for years. He was a 1902 graduate of the Detroit College Medicine. He was a life member of the American Colle of Physicians and the Michigan State Medical Society.

L. L. STEWART, SR., M.D., eighty-four, Jacks physician, died April 27, 1962.

Doctor Stewart received his medical degree from t Detroit College of Medicine in 1900 and practiced in Sprir port for a few years before moving to Jackson. He w a past president of the Jackson County Medical Socie and a life member of the Michigan State Medical Socie

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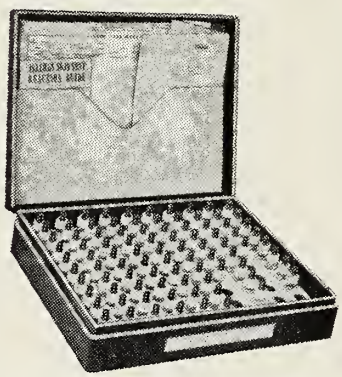
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Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

THE ABORTIONIST. By Dr. X as told to Lucy Freeman. Garden City, New York: Doubleday & Company, Inc., 1962. Price, $3.95.

This book is an argument for legalizing abortion. Dr. X served a prison term. When released, he could not find work in medical or scientific aspects. He gives legal, medical and religious arguments frankly. He is practicing illegally in a forbidden service.

OCCUPATIONAL HEALTH IN AMERICA. By Henry B. Selleck, in collaboration with Alfred H. Whittaker, M.D., F.A.C.S. The book was prepared under the direction of the History Committee of the Industrial Medical Association; Alfred H. Whittaker, M.D., Chairman; Otto P. Geier, M.D., James I. Roberts, M.D., Robert T. Legge, M.D., Loyal A. Shoudy, M.D., McIvor Woody, M.D., Arthur J. Vorwald, Edward C. Holmblad, and George Rosen. 500 pages. Illus. Detroit: Wayne State University Press, 1962. Price, $12.50.

This is actually a history of the American Industrial Medical Association, produced under the direction and the direct supervision and stimulation of Michigan's Alfred H. Whittaker of Detroit. It is the product of many years of research and is a beautifully prepared and well-illustrated book of over 500 pages. This is material invaluable to everybody in industrial medical work. Wayne University Press did a beautiful job of printing.

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W. B. Saunders Company features the following recent books in its full-page advertisement appearing elsewhere in this issue:

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BLOOD PLATELETS. Henry Ford Hospital International Symposium. Editors: Shirley A. Johnson, Ph.D., Associate Division of Coagulation, Department of Laboratories Henry Ford Hospital; Raymond W. Monto, M.D., Physician-in-Charge, Division of Clinical Hematology, Department of Medicine, Henry Ford Hospital; John W. Rebuck, M.D., Ph.D., Chief, Division of Laboratory Hematology, Department of Laboratories, Henry Ford Hospital

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Robert C. Horn, Jr., M.D., Pathologist-in-Chief, Director, Department of Laboratories, Henry Ford Hospital. Boston: Little, Brown and Company, 1961. Price, $18.50.

PREVENTIVE MEDICINE IN WORLD WAR II. MEDICAL DEPARTMENT, UNITED STATES ARMY. Volume V. COMMUNICABLE DISEASES. Transmitted Through Contact or By Unknown Means. Prepared and published under the direction of Lieutenant General Leonard D. Heaton, The Surgeon General, United States Army. Editor-in-Chief, Colonel John Boyd Coates, Jr., MC; Editor for Preventive Medicine, Ebbe Curtis Hoff, Ph.D., M.D.; Assistant Editor, Phebe M. Hoff, M.A. Washington, D.C.: Office of the Surgeon General, Department of the Army, 1960.

MEDICAL PHARMACOLOGY. Principles and Concepts. By Andres Goth, M.D., Professor of Pharmacology and Chairman of the Department, The University of Texas, Southwestern Medical School, Dallas, Texas. St. Louis: The C. V. Mosby Company, 1961. Price, $11.00.

HOUSE OF HEALING. The Story of the Hospital. By Mary Risley. Garden City, New York: Doubleday & Company, Inc., 1961. Price, $4.50.

ANATOMY OF THE CORONARY ARTERIES. By Thomas N. James, M.D., F.A.C.P., Chairman, Section on Cardiovascular Research, Henry Ford Hospital, Detroit, Michigan. New York: Paul B. Hoeber, Inc. Medical Division of Harper & Brothers, 1961. Price, $18.00.

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(Continued from Page 909)

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August, 1962

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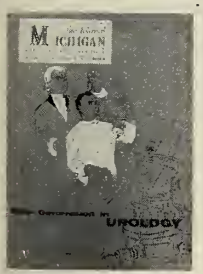
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THE COVER

The scientific articles in this number of The Journal, dedicated to Urology, "makes a heartening endorsement of this new generation in urology."

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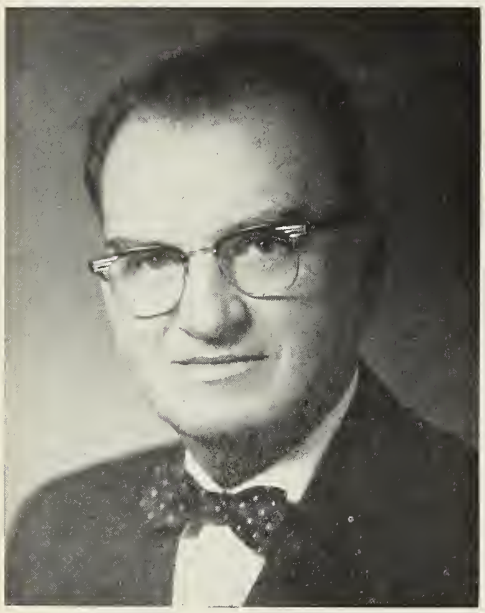
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President's Page

MICHIGAN ASSOCIATION OF THE PROFESSIONS



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Michigan State Medical Society

One of the reasons we have, over the years, been proud of our Michigan State Medical Society is because it has had the courage to seize the initiative and move with imagination. It has anticipated social change and has used its knack of organizational innovation to take full advantage of opportunities for progress. Its positive programs have produced the Michigan Medical Service-Blue Shield, the Michigan Health Council, the Michigan Foundation for Medical and Health Education, the Conference of Presidents.

Its latest major progeny is the Michigan Association of the Professions.

All of these organizations have three significant things in common:

1. Each was formed for a specific purpose—to solve an existing problem or to anticipate a new or growing need.
2. Each provides for cooperation among groups having a common interest.
3. Each permits our medical profession to give better public service.

The Michigan Association of the Professions is now three and one half years of age, having been incorporated on December 1, 1958. In that short time it has become the fourth largest professional organization in Michigan. Its phenomenal growth has not been due to a transient hysteria or a one-shot campaign. Rather, it has attracted professional members and gained public recognition and support because it is basically sound.

We can point with pride to this progeny. MAP has:

1. Advanced public understanding of the professions' dedication to service, by its weekly television program and general publicity.
2. Improved relations between professions via its Congress of the Professions and its committees.
3. Contributed heavily to the enactment of valuable legislation and to the opposing of deleterious measures.
4. Interested and instructed students and school counselors in the professions, by personal interviews and through its annual conference with Guidance Counselors.

MAP's counterparts are developing by solid commitments in eight other states. Professional people in thirty-two states are working toward such an organization. An American Association of the Professions headquartered in Michigan is incorporated and its prospects for full organization and implementation are good.

We should scarcely do less than follow the advice of our MSMS Public Relations Committee and Council and support with our individual memberships this potentially great organization. By this action we will concretely express our congratulations on its fine works and enhance its prospects for a productive future.



Members Admitted Free to MSMS Annual Session

Few associations provide a free convention for their members, but—the Michigan State Medical Society does just that.

Every MSMS member will be admitted free of charge to the 1962 Annual Session in Detroit.

"This excellent postgraduate meeting is one of the major society services to MSMS members," points out A. E. Schiller, M.D., Detroit, chairman of the Committee on Arrangements.

The Annual Session, once again, will provide stellar scientific assemblies and section meetings, excellent exhibits, and special events. The Annual State Society Dinner Dance on Thursday, September 27 will be the social highlight of the week.

On the non-scientific side, every member is welcome to watch the MSMS House of Delegates in official session, September 23-24-25. The Annual Scientific Session begins September 26 and continues September 27-28.

Members are invited to make their own hotel reservation at once, to assure the best possible rooms.

One of the "extra" benefits afforded by the Annual Session is the opportunity for members to renew longtime friendships of medical school days and to make new friends. MSMS has always prided itself on the generous, sincere fellowship at all its membership activities.

Scott T. Harris, M.D., Ypsilanti, chairman of the Program Committee, urges members to review the July number of the MSMS JOURNAL which lists all the outstanding medical authorities and their subjects, and also gave complete information about the many ancillary meetings—including programs sponsored by the Woman's Auxiliary to MSMS and the Michigan State Medical Assistants Society.

Additional mailings are being made to the membership in August and September to point out various highlights of the 1962 Annual Session which promises to be "one of the very best" in the 97 years of MSMS history.

MSMS Ninety-Seventh Annual Session

House of Delegates

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MSMS members interested in contacting any of the guest speakers at the Annual Session are requested to make arrangements through their official "ubiquitous hosts." The following doctors of medicine have placed themselves at the disposal of the out-of-Michigan guest speakers who grace the program:

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Michigan Men Honored For Scientific Exhibit

Three Michigan men received the Billings Gold Medal, one of the outstanding scientific awards at the Annual AMA meeting recently in Chicago. Each year, the Billings Gold Medal is presented for an exhibit judged on the basis of excellence of correlating facts and superiority of presentation.

The award to Drs. Harold F. Falls, Michael R. Deitz and David F. Meldrum of Ann Arbor was for their exhibit on "Syndromes Correlating the Hand and Eye."

Statements of MSMS and Higher Education Council

Re: Medical Education in Michigan

The following statement was adopted by The MSMS Council, April 18, 1962 as the "MSMS Position on Medical Graduate Needs in Michigan":

"The Michigan State Medical Society believes that a greater number of doctors of medicine must be graduated from medical schools of Michigan in order to meet the demands of our rapidly expanding population for continuing adequate medical care in the future. In order to provide for these additional doctors of medicine, MSMS believes that the following policy should be followed:

"1. That the Medical School of the University of Michigan should be adequately supported with sufficient funds to meet the commitments made when it expanded its class to 200 and to continue the proper training of the number of students which it presently serves, and that sufficient funds should be made available so that it can continue and improve its postgraduate training and research program.

"2. That Wayne State University College of Medicine should be expanded to provide for the number of students represented by an entering class of 125 and also carry out a proper postgraduate training and research program, and further that the Wayne State University College of Medicine should be supported so it can expand to its goal of 200 entering students and also carry out an expanded postgraduate training and research program.

"3. That, when the above conditions have been fulfilled, then a careful evaluation should be made of the best means of further increasing the number of doctors of medicine graduated from the medical schools of Michigan.

"4. That MSMS takes no stand at this time as to the location of a third medical school but does offer its assistance to any legitimate and ethical organization working toward increasing medical graduates in Michigan, which seeks its help."

The following recommendation relative to a two-year program in human medicine at Michigan State University was adopted June 12, 1962 by the Michigan Coordinating Council for Higher Education, a voluntary coordinating group.

"A cooperative program of graduate education in the basic medical sciences between Michigan State University, The University of Michigan and Wayne State University is recommended; in which the present educational resources of the three Universities would be strengthened and unnecessary duplication avoided.

"A two-year program of graduate study in human biology would be established at Michigan State University leading toward either a Ph.D. or an M.D. degree. The course work in Anatomy, Physiology, Biochemistry, Bacteriology, and General Pathology would be provided at Michigan State University and would be designed to be equivalent to similar courses in the medical schools of The University of Michigan and Wayne State University.

"Specialized medical course work in Human Pathology, Pharmacology, Clinical Laboratory Diagnosis, Physical Diagnosis, and the Introduction of Clinical Medicine would be provided by the medical schools of The University of Michigan and Wayne State University. Common criteria of admission and student evaluation would be adopted by the three cooperating Universities.

"For those students seeking a Ph.D. degree, the entire program would be available at Michigan State University. Those students seeking an M. D. degree would transfer to the University of Michigan or Wayne State University for approximately the terminal semester of the two-year program. At the conclusion of the two-year program these latter students would be eligible for admission to the final years of medical school—either within or outside of the State of Michigan.

"It is recommended that a joint committee representing the participating Universities be authorized to develop a definitive plan for the establishment and operation of this cooperative program."



George M. Fister, M. D., new AMA president, and Mrs. Fister (*left*), visit during the AMA annual meeting in Chicago with Otto K. Engelke, M. D., MSMS president, and Mrs. Engelke. During the inaugural ceremony, Doctor Engelke and the other state presidents were honored, and they were also honored guests at the reception following for Doctor Fister.

Michigan Fall Election Calendar

August 23, 24, 25—Republican State Convention, Detroit.
August 24, 25—Democratic State Convention, Grand Rapids.
August 27—Board of state canvassers must meet by this date.

September 4—Last date to file petitions to place a local question on ballot.
September 18—Last day to certify ballot wording of local propositions to local or county clerks.
September 25—County clerks must deliver A.V. ballots to local clerks by this date.
September 27 to October 16—Precinct election inspectors to be appointed by election commission between these dates.
September 28—Notice of last day to register for election.

October 8—Last date to register for general election.
October 27—County clerk must deliver remainder of ballots and election supplies by this date.
October 27—Notice of general election to be given by local clerks by this date.

November 3—Deadline for application for A.V. ballots 2 p.m.
November 6—GENERAL NOVEMBER ELECTION (good citizens will vote).
November 7—County board of canvassers meet.
November 21—Last date for county clerk to transmit election results to board of state canvassers.
November 26—Board of State Canvassers must meet by this date.

"McNerney Report" Expected Off the Press This Fall

Publication of the Michigan Study of Hospital and Medical Economics (better known as the "McNerney Report") is expected this autumn.

The American Hospital Association, which is publishing the material collected in the University of Michigan study, reports that "the two volumes will certainly be out in the fall, and we are still hoping the date will be in September."

The AHA adds that "the manuscript is now entirely set in type and we are working on the revised pages and final stages of production. We anticipate the report will be priced in the neighborhood of $20.00."

MSMS has been assured by AHA that "you will receive a prepublication notice as soon as we can establish a definite delivery date and final price."

The 1961 MSMS House of Delegates requested that the members be notified as soon as the publication becomes available.



Several striking photographs of the MSMS headquarters building in East Lansing are featured in the July issue of *Building Progress*, a monthly magazine distributed by general building contractors, real estate companies, finance institutes and allied business and industry. The inside front cover prints the photo above of the front of the headquarters.



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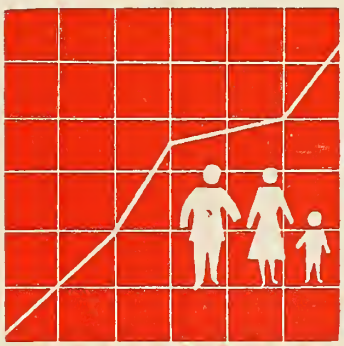
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The American Economic Scene at Mid-Century

By Clyde T. Hardwick, Ph.D., *Economic Consultant to MSMS*

(This is the third and concluding part of the text of a speech delivered by Dr. Hardwick at the 1962 MSMS County Secretaries-Public Relations Seminar in East Lansing, on February 1.)



The Road Ahead

This brief and sketchy history of economic thought has omitted many details but has tried to make a point. Just a quick re-statement: from the government controls of the mercantilist to the freedom of the market place of Adam Smith, we have again returned to the domination of the economy by government, not always under the title of socialism. Modern economic planning and decision-making has become a partnership between private businessmen and big government. Lest we forget, government today regulates and controls agriculture, labor, transportation, banks and money, radio and television, public utilities, monopolies, hospitals, schools and professions; and under Interstate Commerce, who knows what is next.

Furthermore, under the banner of protecting the consumer and contributing to the general welfare, there is no economic endeavor that appears beyond the reach of ambitious government leaders. Some of what I have said may not be popular because objecting to the inroads of government in the economic sphere is old-fashioned, outmoded and conservative. Nevertheless, it is in keeping with our American heritage to stand for liberty, freedom of speech, independence and free choice by the individual. This presentation has aimed to set in perspective where we have our roots, what roads we are now traveling and to rationally guide us in deciding where to go from here. My proposition encourages the preservation of the private sector against the swallowing up by government. I suggest, those who believe in the private enterprising of individuals have a right to be heard and have a great loss at stake if we keep silent any longer. We suggest a few eternal principles which might assist us in standing our ground, such as:

1. Preservation of local liberties, traditional private rights and division of political powers, including preservation of private choice and voluntary power centers.

2. Defense of private property, private income and individual responsibility to earn and spend as each sees fit.

3. National humility which avoids the early subscription to every generalized plan and utopian proposal, with statistics.

4. Affirmation of moral nature of society, individual dignity and honesty, family piety and public honor.

5. Belief in fighting for time-honored achievements and subscribing to evolutionary progress in keeping with the wisdom of the nation, not the promises of revolutionists.

The American Economic Scene

(Continued)

What Do We Fear and Fight Against?

1. Contempt for tradition.
2. Political and economic leveling.
3. Unlimited socialism.

This review has intended to show how the liberalism of the 18th century and early 19th century stood for the independence, freedom and responsibility of the individual. Now in the 20th century, liberals prefer to imitate the mercantilist by standing for the powerful state instead of individuals. It is suggested that those of us standing for the individual have behind us a fine tradition of liberalism and ahead of us a great opportunity by objecting to the monolithic state's taking over areas belonging to the individual. To assist in liberating the individual, some basic guidelines, such as outlined in this presentation, are needed.

Besides living in the critical days of the present, we Americans of the mid-twentieth century are involved in the decisions that may cause historic changes in the future. From the standpoint of a democratic society, the truth as to the division of responsibilities between the private economy and the public economy lies somewhere in between the extremes. We no longer live in the theoretical world of extreme individualism of Adam Smith, but neither are we ready to abandon the free economy in favor of any all-embracing public economy.

Within the free enterpise philosophy suggested herein, the Department of Medical Socio-Economics of the Michigan State Medical Society will carry on studies and research for your committees and members, pointing out the facts and figures pertaining to the growth and the protection of the greatest private health program in the world. Topics that may attract our attention are many but probably will include the following general areas:

1. The Economics of Health Care
2. Costs and Prices of Health Care
3. Effectiveness or Value of Dollars Spent on Health Service
4. Role of Government in Medical and Hospital Areas.
5. Constructive Proposal to Preserve the Professional Independence of Medical Practitioners.

Goals for Americans

Let me conclude with a quotation from a 1960 Report of the President's Commission on National Goals: "There are many legitimate goals for the United States. None of them—literally none—is attainable without the intelligence, courage, and industry of individuals. The central goal, therefore, should be a renewal of faith in the infinite value and the unlimited possibilities of individual development. Whatever constitutes a barrier to a man's inalienable rights should be swept away. Nothing whatever should curb his right to life—as long, as full, as rich as life can be. Liberty is his, because of his manhood; in liberty the infinite richness of his contribution to the life of others is facilitated. The pursuit of happiness is an endless quest; in it no one can "deliver the goods" to the individual, though the environment can be vastly improved. He must seek it for himself."

Blue Shield Membership Grows

More than 49,250,000 persons were enrolled in the 74 Blue Shield Plans, as of March 31, 1962, for a net gain of 130,458 new members during the first three months of 1962.

Among the leading Blue Shield Plans is the District of Columbia Blue Shield Plan, with four enrolees out of every five residents in that area; Rhode Island Blue Shield, 68 per cent; Rochester, N. Y., 66 per cent; and the Delaware Plan 61 per cent.

* * *

Since the turn of the century, the number of active professional nurses in this country has increased from less than 1,000 to 504,000. Almost two-thirds of today's nurses are employed in hospitals and related institutions.

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Hippuran Renogram in Occlusion Of Renal Vein or Tubular Necrosis

Preliminary Report

Assadolah Abbassian, M.D.
Detroit, Michigan



THERE ARE occasions in surgery when patients become oliguric after massive blood loss and early recognition and proper treatment becomes imperative. There is, however, a question whether ologuria is due to prerenal hypotension or hypotensive anoxia which has been present long enough to produce anoxic tubular necrosis, for often this follows longstanding hypotension.

Treatment of these two conditions is obviously different. The main purpose of this experimental work is to discover an easy, practical method of differentiation between these two conditions by the use of the Hippuran I^{131} Renogram, since this substance is excreted completely and exclusively by the renal tubules.

Thrombosis of the renal vein is another interesting and important phase of this subject which is not discussed often enough and is very seldom diagnosed clinically. The thrombosis in the neonatal period usually begins during a period of dehydration associated with toxemia and severe infections, particularly gastroenteritis. In older children and adults it may follow thrombosis of the inferior vena cava and it may also be due to trauma after renal pedicle manipulation. Our preliminary experiments consisted of a comparison of renograms of renal vein occlusions with those of obstructions of the ureters as well as renal arteries. Renograms were obtained after intravenous injections of small amounts of isotope hippuran showing, characteristically, a steep initial rise interpreted as a vascular spike which is a result of the filling of the renal vasculature from isotope-laden blood, and a second slower rise reflecting tubular accumulation, and excretion of the isotope called the tubular phase, and finally the third descending slope, which is the outflow of hippuran from the kidneys called the "phase of excretion."

Procedure

Experiments were done in dogs, anesthetized with Nembutal; excretory urograms were taken and the kidneys were localized. Three to five microcuries of hippuran I^{131} were used. The sensitivity of the count rate meter was set on 3 K and the time constant on ten seconds. The rate of paper travel was one inch every five minutes. These curves seemed to demonstrate accurately the movement of the isotope into and out of the kidneys. A preoperative renogram was taken. Then the left renal vein was occluded and renograms at various intervals were taken from both sides for a comparison.

Doctor Abbassian is Resident in the Department of Urology, Harper Hospital, Detroit, Michigan.

Results

The effects of the renal vein occlusion appear right after the ligation and the renogram changes remarkably. The amplitude of the initial vascular spike

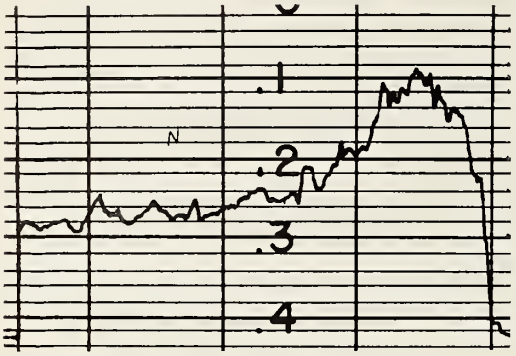


Fig. 1. N—Normal renogram.

diminishes, the second slow tubular rise flattens out, and the third excretion phase remains on a plateau. Pathological studies of the kidneys at this time showed hemorrhagic infarction, acute congestion of all vessels, cortical as well as medullary, massive hemorrhage into interstitial tissue, mostly at the cortico-medullary junction. The proximal tubules show fresh tubular

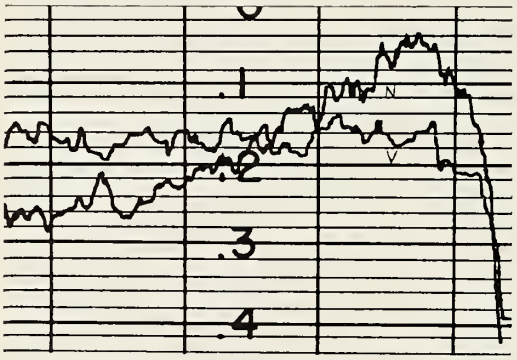


Fig. 2. N—Normal renogram (V—Venous obstruction, right after ligation).

necrosis, the collecting tubules contained hyalin casts.

Apparently, isotope-laden blood which reaches and remains in the tubular cells, interstitial tissue and tubular fluids, gives a pattern of isotope stagnation in the kidney with an initial spike and then the plateau. At first glance this curve may look like an ureteral obstruction as has been mentioned by others, but we believe there are several differences.

In venous obstruction the vascular spike is shorter and the tubular phase is not apparent; in ureteral obstruction the first initial spike does not change and the tubular phase keeps its peculiar dome-shaped configuration and the third excretion phase does not remain on a plateau but rather gradually rises.

The main difference between the two curves becomes apparent as more time elapses and successive follow-up renograms show that the vascular spike in renal vein occlusion becomes very short, about one-half to one-third of the control side, followed by a plateau. In ureteral obstruction, as long as tubular

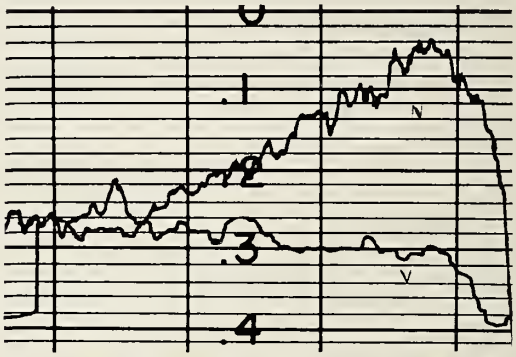


Fig. 3. Normal renogram. (V—Venous obstruction, later stage).

cells are alive, the configuration of the curve remains constant.

The curve of renal vein occlusion at this time would be very much the same as occlusion of the renal artery which is nothing but tissue background pattern.

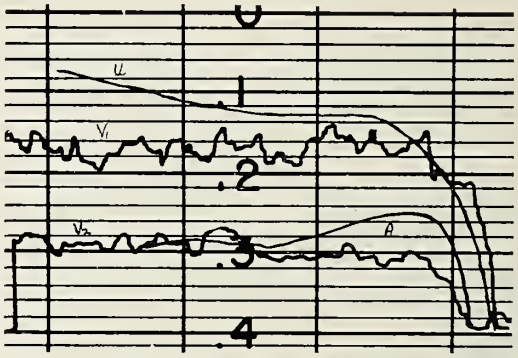


Fig. 4. U—Ureter obstruction. V_1—Venous obstruction right after ligation of the renal vein. V_2—Later stage. A—Arterial obstruction.

Summary

The Hippuran I^{131} Renogram is of definite diagnostic value in occlusions of the renal vein. It is especially helpful when successive follow-up renograms are utilized to differentiate renal vein thrombosis from arterial or ureteral obstructions.

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2. Winter, C. C.: A clinical study of a new renal function test, the radioactive diodrast renogram. *Amer. J. Urol.*, 76:182-196, 1956.
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4. Winter, C. C.: Evaluation of the radioactive renogram in hypertension. *Amer. J. Urol.*, 85:679-682, 1962.

Hematocolpos: An Unusual Cause for Urinary Retention

C. R. Friend, M.D.
Eloise, Michigan

THERE ARE many causes for urinary retention in the female, but one of the most rare is that due to hematocolpos. Hematocolpos has been defined as retention of menstrual fluid in the vagina. This is usually secondary to an imperforate hymen.

Case Report

B.S., a 14-year-old girl, was seen in the admitting room on February 14, 1961 with the past history of being in good health. On awakening on the morning of admission she noted she was unable to void or to have a bowel movement. Later while in school, she was again unable to void and began to have increasing perineal discomfort especially while sitting. She was then sent home and brought to our admitting room by her mother.

Review of systems disclosed a history of amenorrhea. There was no monthly history of lower abdominal discomfort suggestive of menstrual cramps. She had no previous history of urinary difficulty. Remainder of system review was negative.

The mother's menarche was at age 14. The patient's two older sisters had their menarche at ages 11 and 12.

The physical exam presented a well developed 14-year-old girl with the expected breast development and female body hair distribution for her stated age. Her lower abdomen was tender and dull to percussion in the suprapubic region. Examination of the genitalia and perineum showed a tense, bulging, imperforate hymen. Rectal examination demonstrated an anterior fluctuant tender mass. The uterus could be palpated.

The bladder was catheterized and 670 cc. of urine was obtained.

She was then taken to the operating room and a hymenectomy was performed. Approximately 400 cc. of dark, bloody fluid was removed from the vagina. Pelvic examination demonstrated a rather large vagina with normal uterus and adnexal structures.

Postoperatively, she was placed on broad spectrum antibiotics and her convalescence was unremarkable.

On a follow-up evaluation three months postoperatively, she reported her menstrual periods to be every 26 to 30 days, with a four-day flow and without dysmenorrhea. She has had no difficulty in voiding.

Discussion

Hematocolpos presents as a manifestation of one form of gynatresia. Two cardinal symptoms are amenorrhea and monthly dull, aching, lower abdominal pain. This case presents two variants. She did not have a history suggestive of cyclic menstrual cramps, and her presenting symptom was urinary retention. In a review of 118 cases by Doctor Tompkins[1] at the University of Pennsylvania, these two variants are discussed as unusual but not rare presenting clinical findings. Treatment consists of a liberal hymenectomy to prevent recurrence of the entity, and antibiotics to control ascending infection and peritonitis. The latter was the most common complication in the days preceding antibiotics and occasionally was the cause of death.

Summary

A case report of urinary obstruction in a 14-year-old girl secondary to hematocolpos is presented.

Reference

1. Tompkins, P.: Treatment of imperforate hymen with hematocolpos. J.A.M.A., 113:913, 1933.

From the Department of Urology, Wayne County General Hospital.

Treatment of Doriden Intoxication by Hemodialysis

L. P. Sonda, M.D.
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DORIDEN is the trade name of an oral non-barbiturate "non-habit-forming" sedative which has received wide acceptance. In the literature it is also referred to as glutethimide. Its chemical name is 2-ethyl-2-phenylglutarimide. The usual bedtime dose is 0.5 Gm. For daytime sedation, the recommended dose is 125 to 250 mg. t.i.d. Unfortunately, Doriden has joined a long list of drugs popular in suicide attempts. As early as 1957 McBay and Katsas reported four fatal cases of Doriden ingestion. The literature contains many subsequent similar reports. Initially, on the basis of the LD_{50} for mice, the lethal adult human dose was estimated at 40 Gm. However, fatalities involving dosages of less than 10 Gm. have since been reported.

The clinical picture of Doriden intoxication is primarily one of deep coma. The pupils are fixed and dilated. Pain, corneal, gag, abdominal, cremasteric and plantar reflexes are absent. Pulmonary ventilation is inadequate. Commonly, the respiratory rate is elevated but a very shallow excursion is present. Rarely, the patient may be apneic with rates as low as four per minute reported. Upon occasion the respiratory effort may be grossly irregular both as to rate and excursion. In all three cases, some degree of cyanosis is common. Hypotension is also frequent, with systolic blood pressures of 50 to 80 mm. Hg. common. Deep tendon reflexes may well be present even in a cyanotic hypotensive patient and may not be used as a criteria for deferring a vigorous therapeutic approach.

These patients uniformly do poorly on the usual program of gastric lavage, IV infusion, vasopressors, tracheostomy, oxygen and stimulants. Death is common and usually occurs on or about the seventh day. Pneumonia is the most frequent immediate cause of death with cerebral and pulmonary edema having been reported also. In contradistinction to barbiturate intoxication, we do not believe that an expectant attitude of "let's watch and wait" is justified with Doriden. Conservative management of barbiturate intoxications including on occasion the use of artificial respirators has by and large proved adequate at our institution. In the past year, we have placed no barbiturate or non-Doriden mixture of intoxicants on the artificial kidney. This has not been the case where Doriden was involved. The following two cases are illustrative.

From the Department of Urology, Wayne County General Hospital.

Case Reports

Case 1.—A 35-year-old white woman was admitted to Wayne County General Hospital in March, 1961, following an unknown amount of Doriden ingestion estimated between 5 and 10 Gms. There was also some question of a small intake of Librium and Tofranil. Gastric lavage was done in the Emergency Room about 12 hours post-ingestion. She was sent to the ward with IV fluids and Ritalin therapy in progress. Approximately 24 hours post-ingestion, blood pressure dropped to 70/0, responding to vasopressors. One hour later the patient was noted to be cyanotic with very irregular respiratory rate and excursion. Oxygen and endotracheal suction relieved the cyanosis only partially. The patient at this time had fixed and dilated pupils, no response whatever to painful stimuli and absence of all reflexes except deep tendon.

Electrolytes were in the normal range and about 28 hours post-ingestion dialysis was started using a standard bath in the Kolff Twin Coil Artificial Kidney. At the end of six hours with two bath changes the pupils were reactive, there was an active gag reflex and the patient responded to painful stimuli. Eight hours later, the patient was verbally active and shortly thereafter was feeding herself. Vasopressors were required for 48 hours after the hemodialysis however. Her subsequent course was uneventful and she was discharged on the seventh hospital day.

Case 2.—A 47-year-old white man was admitted to Wayne County General Hospital April, 1961, approximately six hours post-ingestion of an estimated 25 Gms. of Doriden. The patient had fixed and dilated pupils, blood pressure 65/0, was areflexic except for deep tendon reflexes, was totally unresponsive, had a respiratory rate of 44 and was cyanotic. Tracheal suction in the Emergency Room revealed gastric contents. The patient had a tracheostomy performed and was admitted to the ward with IV vasopressors, oxygen and Ritalin in progress. Subsequently, the deep tendon reflexes disappeared.

Thirty-six hours post-ingestion, the patient's temperature was 102.4 presumably secondary to aspiration pneumonitis, and he was obviously deteriorating. Approximately 42 hours post-ingestion, he was placed on the artificial kidney and

dialyzed for six hours. At the end of this time, he responded actively to pain, moved his head spontaneously and as the cannulas were being removed opened his eyes partially and yawned. The following day, he fed himself, but had to be maintained on vasopressors for a total of three days. After adequate treatment for his pneumonia, he was discharged on the 9th hospital day.

Summary

1. Doriden intoxication is a dangerous and frequently lethal situation.
2. Doriden is readily dialyzable.
3. Early treatment by hemodialysis is indicated.

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Aspirin Thought to Act Against Both Inflammation and Pain

Medical authorities are increasingly tending to believe that the reason aspirin relieves pain so effectively is that "it acts both peripherally—in an anti-inflammatory sense—and centrally—as a true analgesic," according to Louis Lasagna, M.D., John Hopkins University School of Medicine.

He makes the statement in a review of analgesic drugs appearing in the *American Journal of the Medical Sciences.* While the search for better drugs is vigorously pressed, there is reason to be gratified that there are presently available acceptable techniques to measure clinical pain and analgesia, he states. Relatively little progress has been made, however, in understanding the physiology of pain and the mechanisms of analgesia.

Describing aspirin as "a drug of obvious safety in most patients," Dr. Lasagna notes that "the diverse potential of this remarkable analgesic drug remains unappreciated by many physicians.

"Aspirin has been demonstrated to be an effective pain reliever in postoperative pain, postpartum pain and the pain of malignancy, in addition to rheumatic and other kinds of pain."

Prostatic Metastases to the Breast

Effect of Estrogen

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FOLLOWING is a brief summarization of a longer review of the literature intended for publication. Its purpose is to demonstrate that the estrogens we utilize for treatment of prostatic carcinoma do not cause primary carcinoma of the male breast.

The case study included is of a 67-year-old colored man, who was treated by trans-urethral prostatectomy for obstructive prostatic symptoms. The initial pathology was benign. However, four years later, he was found to have carcinoma of the prostate and placed on estrogens. Two years subsequent to this, he developed bony metastases, and biopsy proved metastases to the right breast.

General belief to the contrary, decisive evidence, based on definitive demonstration, that therapeutic estrogens are causative factors for the development of primary male breast carcinoma had not yet been presented. This review develops the suggestion that the group of malignant lesions found in the male breast may actually be composed of two types of neoplasm: First, true primary carcinoma of the breast; Second, a series composed of metastatic neoplasms from the prostate.

Certain mouse-tumor studies reported in the late 1930's and early 1940's indicated that a form of breast malignancy developed in mice after tolerating massive administration of estrogen. Reviewers have repeatedly stressed that the mouse-studies were conducted on strains with a high initial incidence of spontaneous mammary carcinoma. Attempts to reproduce the findings in higher mammals have quite regularly failed. Nonetheless, there developed a widespread apprehension of the use of estrogens in human males for therapeutic purposes. These early findings were amplified by sporadic clinical reports of estrogen-induced breast-changes in both men and women. In 1940, an editorial in *The Journal of the American Medical Association* carried the admonition that estrogens could induce breast-changes and might even have a potentiality for causing genital or reproductive cancer. More recently, certain true malignancies have been reported as found in the breasts of men receiving estrogens as palliation for prostatic carcinoma. These have been ascribed by various authors as due to some carcinogenic influence exerted by the estrogen. Such breast malignancies have been found both in the presence and in the absence of generalized prostatic metastases. In this manner the suspect character of estrogens as cancer-inducing agents was strongly intensified and a widespread apprehension of their clinical use for men with prostatic malignancy has developed.

Our review of these reports indicates with some regularity an indication to re-designate the breast-tumors as metastases from the prostate. In fact, often the original publication or a subsequent addendum thereto makes this re-designation. Several previous reviews, notably that of W. R. Benson, and of Campbell and Cummins, have been unable to find convincing evidence that the reported breast neoplasms are primary or that they are estrogen-induced. The tumors of the breast are found to consist of cords and sheets of undifferentiated cells with scant cytoplasm dispersed in an irregular pattern. The nuclei are pyknotic, hyperchromatic and frequently involved in mitotic formations. In some instances attempts at acinar formation are present. It must be noted that this is a type of cell-pattern characteristic of lesions metastatic from the prostate. In some reported cases the breast lesions are microscopically closely allied with the described prostatic lesions in appearance. We feel, therefore, that many of the breast lesions so described may well be metastases from the prostate.

What, then, is the role of estrogens in the causation of these lesions? It does not seem to be one of primary induction of carcinoma by initiating a new neoplastic process. Such parenchyural changes which do appear, are observed to be non-permanent and to reverse after cessation of the estrogen. Instead, the effect of estrogen on the male breast appears to be such as to develop a substrate receptive of metastases from such organs as the prostate. The mechanism is predicated on stromal hyperplasia with increased vascularity and susceptibility to invasive influence. Furthermore, since the lifespan of the individual is prolonged by the palliative effect of the therapy, it is apparent that metastases are given an added oppor-

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tunity to develop. This, therefore, appears to be the mode by which estrogens allow for the appearance of male breast lesions.

Added support is given this hypothecation by several experimental studies in which estrogen-induced mouse breast tumors are seen to regress completely within a brief period of time after cessation of the agent. A true malignancy, regardless of the influence responsible for its inception, must endure after cessation of that influence; exception cannot be made to this basic law of neoplasia for breast tissue influenced by estrogen. For this reason, we question that estrogens are capable of inducing true breast malignancies.

In general, it can be said that prior reviews of breast carcinoma in males fail to consider the prostate as a possible organ of metastatic origin. Furthermore, most reviews of prostatic patterns of metastases do not include the breast in their discussion. However, some examples in each category are present in the literature, and it seems reasonable to expect that if clinical search with intent to correlate were made, more such examples would be found.

Anaplasia often renders accurate differential diagnosis difficult, and in some cases metastases are found before the primary is diagnosed. Certain cases reported as primary breast carcinoma with metastases might instead be primary prostatic carcinomas. Since the average age of development of so-called male breast carcinoma is 52 years, and since carcinoma of the prostate developing in a patient of this age is highly malignant and prone to metastases, the probability of such metastatic relationship is reasonable.

Male breast carcinomas respond in variable fashion to treatment by estrogens and by androgens. Those which are aggravated by androgens are usually improved by estrogens. This metabolic similarity to prostatic carcinomas tends to strengthen the suspicion of metastatic relationship.

The most specific means of diagnosis available today is analysis of the suspected breast lesion for acid phosphatase activity. Several histochemical techniques are available. Remarkably accurate results have been reported for the pilot studies of these techniques, and they should now be feasible for the average hospital laboratory. When such techniques are utilized, most probably many neoplasms of the male breast now classified as "carcinoma simplex of the male breast" will be recognized as metastatic from the prostate.

It is reasonable to expect that some of these breast lesions will be diagnosed prior to the discovery of the prostatic primary. This is especially true in view of the incidence of distant metastases noted at the time of initial diagnosis of prostatic carcinomas, in particular, those prostatic carcinomas with local extension. For this reason, we suggest that all male breast lesions be biopsied and studied for acid phosphatase activity. This should be done regardless of the presence or absence of history of prostatic neoplasm or of estrogenic therapy for such neoplasm. When such study reveals positive acid phosphatase activity, investigation of the prostate must be instituted.

In conclusion, we present eight premises upon which we base our opinions and suggestions:

1. Early experiments which induce breast malignancies in mice by administration of estrogen have not been convincingly reproduced in other mammals or in man.

2. Cases in which proven *primary* carcinoma of the male breast develops after estrogenic therapy continue to be extremely rare.

3. A confirmed relationship between estrogenic therapy and carcinoma of the human male breast has not been demonstrated. Reported cases may be chance occurrences.

4. Review of earlier-reported cases of estrogen-induced breast malignancy in some instances reveals reason to change the diagnosis to metastatic carcinoma.

5. It appears that the duration of exposure to the agent, relative to the lifespan of the organism (in this instance the human male), and to the total dose administered, is such as to be unlikely to have effective carcinogenic action when considered in the light of presently available oncologic data.

6. Perhaps estrogen, by causing hyperplastic development, acts to prepare the breast as a site receptive to metastases from such organs as the prostate. Increased lifespan may allow more time for such dissemination.

7. Clinical response to estrogenic therapy of suspected male breast carcinomas with widespread metastases ought to stimulate investigation of the prostate as a possible true primary site.

8. Methods of diagnosis utilizing histochemical techniques are available and ought to be utilized in all breast malignancies found in male patients.

Addendum

Since preparation of the manuscript, an additional case of verified prostatic metastasis to the breast has been reported: Campbel, J. H., Cummins, S. D., Kirk, D. L., and Mathews, W. R.: Secondary breast cancer of prostatic origin, J.A.M.A., 179:158, 1962.

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Leiomyosarcomas

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LEIOMYOSARCOMA is one of the smallest histologic classes of malignant tumors of the bladder. A review of the literature from 1875, when Gussenbauer reported the first case from Billroth's Clinic, revealed reports of only 52 cases. It is possible, of course, that a few cases were not discovered. It is also true that later authors have questioned the diagnosis in some of the cases reported as leiomyosarcoma.

CASES OF LEIOMYOSARCOMA OF THE BLADDER REPORTED SINCE 1875[1-36]

Age	*Male*	*Female*
1-10	4	0
11-20	1	3
21-30	3	0
31-40	1	5
41-50	4	2
51-60	12	4
61-70	5	1
Over 70	2	1
Not stated	4	
Total	36	16

Recently, the authors had the opportunity to treat and study a case of leiomysarcoma and another case of leiomysarcoma coincident with carcinoma of the urinary bladder.

Case Reports

Case 1.—S.H.A., a 37-year-old white woman was first seen in the Outpatient Department of Henry Ford Hospital August 30, 1960, with symptoms of dysuria and frequency of urination of two months duration. She had noted gross hematuria also several times since the onset of symptoms. The physical examination was negative. Endoscopy and cystoscopy under local anesthesia revealed a smooth, glistening tumor, 4 x 5 cm., with a base of 3 cm. in diameter on the left posterior dome of the urinary bladder.

The patient was admitted to the hospital September 7, 1960. On admission, her hemoglobin level was 10.5 gm. Her urine showed a pH of 5; specific gravity, 1.015, sugar, negative; albumin, 4+, with numerous white and red blood cells. Serology was negative. BUN, 10 mg. per cent. Chest x-ray and intravenous pyelograms were normal.

September 8, 1960, under spinal anesthesia, exploratory laparotomy through a transverse suprapubic incision revealed no evident spread of the tumor. Owing to firm adhesions between the bladder and the peritoneum overlying the area of the bladder encompassing the tumor, this portion of the peritoneum was left attached to the bladder wall and the peritoneal defect was closed with continuous No. 3-0 chromic catgut suture. The bladder then was opened and the tumor plus a 2.5 cm. margin of grossly normal bladder was resected. The bladder was closed and a Penrose drain was left in the space of Retzius. A No. 24 urethral catheter was left indwelling, connected to straight drainage.

The postoperative course was uneventful and the patient was discharged September 21, 1960.

The patient returned December 1, 1960, for routine cystoscopic examination three months postoperatively and no evidence of recurrent tumor was found. Cystoscopy, March 3, 1961, six months after operation also revealed no evidence of recurrence of tumor.

Case 2.—E.D., a 71-year-old white woman, was seen in the Outpatient Department of Henry Ford Hospital September 7, 1960, with symptoms of frequency, urgency and dysuria associated with gross hematuria of three to four weeks duration. Past history revealed: absolute glaucoma, left eye; enucleation, right eye; severe arteriosclerotic heart disease with moderate congestive heart failure; hypertensive cardiovascular disease; hiatus hernia; duodenal ulcer; duodenal diverticulum; diverticulosis and diverticulitis of the colon, and a large incisional ventral hernia.

Mild tenderness was present over the entire abdomen. The liver was smooth and palpable two centimeters below the right costal margin. Pelvic examination revealed a large, tender mass in the region of the urinary bladder, extending to the left lateral pelvic wall.

The urine showed albumin 2+, sugar negative and numerous white and red blood cells.

Subsequent endoscopy and cystoscopy revealed a large necrotic tumor involving the whole floor and left wall of the bladder, including the trigone. Neither ureteral orifice could be identified. Transurethral resection biopsy of the bladder tumor revealed the presence of leiomyosarcoma and carcinomatous elements.

The patient was admitted to the hospital September 19, 1960. On admission, her hemoglobin was 11.5 gm., the WBC was 20,150 and the BUN was 23. Intravenous pyelograms revealed non-function of the left kidney with poor visualization of the right kidney. Chest x-ray examination showed no abnormalities except for cardiomegaly. A barium enema was negative except for diverticulitis throughout the colon. Lumbosacral spine x-rays showed degenerative arthritis. Proctoscopy revealed a small polyp which was excised and was reported as benign.

Because of the patient's very poor general condition and

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the obvious spread of the tumor on pelvic examination, palliation was felt to be the treatment of choice. By transurethral resection of the bladder tumor 85 gm. of tissue were removed September 22, 1960. Further palliation then was given with cobalt radiation, the patient receiving a total of 5800 roentgens through a 10 by 12 cm. port over a period of six weeks. While under treatment, the patient became very weak and developed nausea, vomiting, and anorexia. She became dyspneic and a large left pleural effusion developed. Thoracentesis was performed and cell block was positive for malignant cells. The patient's condition progressively worsened and she expired November 15, 1960. Permission for autopsy was refused.

Discussion and Conclusion

Leiomyosarcoma may occur at any age and is found twice as often in male as in female patients. Because of the extreme malignancy of the tumor, the prognosis is grave, death usually occurring within a year after the onset of symptoms.

Unfortunately, leiomyosarcoma may grow outwardly and peripherally for a considerable time before invading the mucosa and causing hematuria. Unlike rhabdomyosarcoma, it is more likely to have its origin in the wall of the urinary bladder, rarely arising from the trigone. The tumor is usually lobulated and pedunculated and has a tendency to local growth and recurrence rather than distant metastases. The apparently improved survival in recent years reported by several authors is probably attributable to earlier diagnosis, more complete removal of the tumor and better preoperative and postoperative care.

At present, definitive treatment should consist of wide excision of the tumor either by segmental resection, if that is sufficient, or by total cystectomy of the closed bladder with transplantation of the ureters to a loop of ilium. Since this tumor is not especially radiosensitive, deep x-ray therapy is better reserved for palliative treatment. Due to its rarity, treatment of this tumor with chemotherapeutic agents has not yet been evaluated.

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Hemolysis During Transurethral Resection Of the Prostate

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UROLOGISTS differ as to the best irrigating fluid for transurethral surgery. The work of Creevy[1] established that intravascular hemolysis with increase in hemoglobinemia occurred during transurethral resections, and that isotonic irrigating solutions minimized such hemolysis, with its attendant risk of acute tubular necrosis. The commonly used solute glycine has certain disadvantages, such as decreased visibility, a tendency to make instruments somewhat sticky, the mechanical difficulties inherent in procuring and mixing the solution, and cost. It has been urged[2] that the non-hemolyzing nature of the irrigating fluid is of trivial importance in preventing postoperative renal failure in resected patients, and that if plain water be used, care in preventing hypovolemia will obviate this complication. The purpose of this paper is to report three successive cases in which plain water was used in which hemolysis occurred, and in two of which acute renal failure followed.

The irrigating solution which has been used ordinarily at our hospital is 1.1 per cent glycine solution. Because of some difficulty with sticking of the instruments, we began using sterile water. Many patients were resected and no evidence of hemolysis or renal complication occurred for several months. Then the following three cases were seen on successive operating days:

Case Reports

Case 1.—Hospital number 410705. The patient, aged seventy-two, entered the hospital January 11, 1961 in retention of 1200 cc. of urine. Renal function and other laboratory studies were normal. On January 17, a transurethral resection of the prostate was done under spinal anesthesia. Actual resection was begun at 9 a.m. Soon afterward, the patient began shivering so that auscultation of the blood pressure was difficult. There was a fall in blood pressure after 55 minutes of resection from a level of 120 systolic by palpation to 90. One unit of whole blood was started. The resection was completed at 10:30 a.m. (1½ hours).

In the recovery room the patient was seen to be markedly cyanotic, although he appeared in no respiratory distress and was maintaining his vital signs satisfactorily. A centrifuged specimen of blood showed a pink supernatant. The cyanotic appearance persisted for several hours. In the postoperative period, the patient maintained a normal urinary output and had a benign course, being discharged on the ninth postoperative day.

Case 2.—Hospital number 410776. The patient, aged seventy-five, was admitted January 12, 1961 with marked obstructive urinary symptoms due to prostatic hypertrophy. Renal function and other laboratory studies were normal. On January 19, a transurethral prostatectomy was done under spinal anesthesia. The procedure took seventy minutes. The patient's weight just before surgery was 65 kilograms; just afterward, 68 kilograms. Vital signs remained constant at normal levels throughout. Blood loss was minimal and none was given in the operating room. In the recovery room the patient began to shiver, became markedly cyanotic without evidence of respiratory distress, and the supernatant of a centrifuged blood sample showed a clear pink color. Later there was increased bleeding via catheter and blood pressure fell to 80/50. 1000 cc. of blood were given to restore blood pressure to the normal level of 90-100.

Vital signs remained stable but on the morning after surgery the patient was clinically jaundiced. He became severely oliguric and was placed on an acute renal failure regime, and began to diurese on the tenth day. Recovery was complete from this point and the patient was discharged.

Case 3.—Hospital number 56706. This patient, aged seventy-seven, had severe arteriosclerotic heart disease with cardiac decompensation and diabetes. He was seen by us in urinary retention of 750 cc. Because of his poor physical condition nothing more than a suprapubic cystostomy was done initially (March 8, 1959), but because he tolerated the cystostomy poorly and because his renal and cardiac status had improved slightly in the interim, he was readmitted and a transurethral prostatectomy was done on January 26, 1961. Preoperatively his plasma urea nitrogen was 25 mg. per cent, serum creatinine 2.4 mg. per cent, creatinine clearance was 50 cc./min. The operation was completed without incidence in 75 minutes. The patient's weight on the morning of surgery was 74 kilograms; immediately after surgery, it was 76 kilograms. Because of continued dark bleeding at the conclusion 500 cc. of whole blood was given.

The patient continued to maintain his vital signs following surgery and was alert and comfortable. However, on the morning of the first postoperative day, he was deeply

(Turn to Page 968)

Diagnostic Study for Calculus Disease

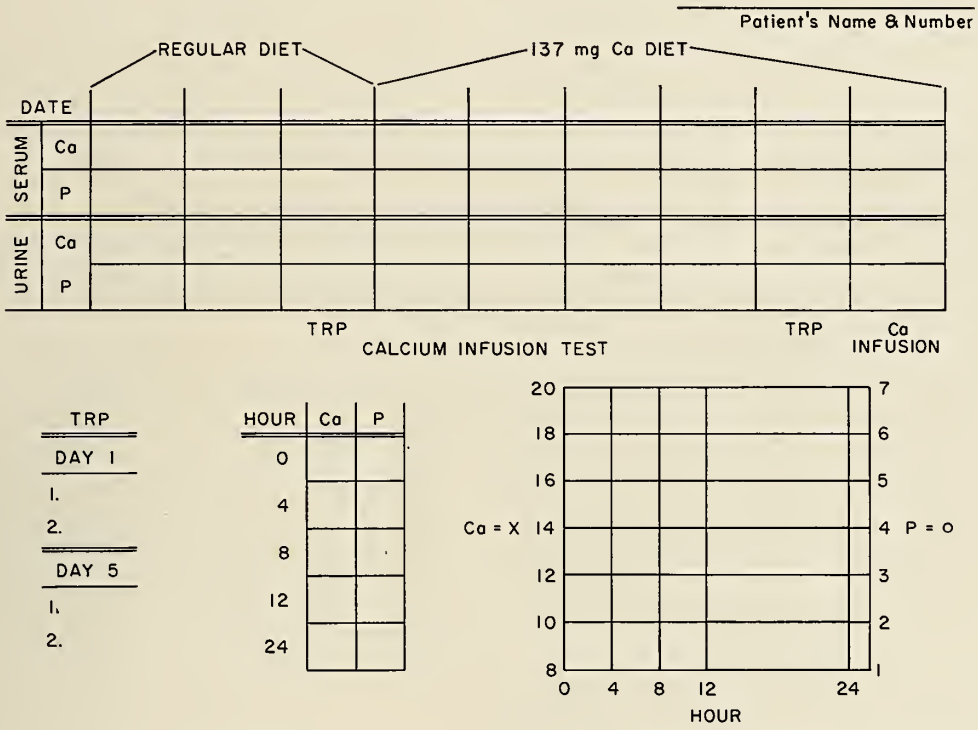
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THIS PAPER presents a simplified screening test for patients with calculus disease. At the Ann Arbor Veterans Hospital, every patient with a proven calculus is now run through this study.

Ninety per cent of all urinary calculi in North America contain calcium, so our tests are concerned primarily with calcium metabolism. About 60 per cent of patients with stones have an increased urinary excretion of calcium. Once hypercalciuria has been established, we must determine if the patient has a metabolic cause, such as hyperparathyroidism which accounts for 5 to 10 per cent of stones, or if the patient falls into the group who absorb an abnormal amount of calcium from their gastrointestinal tract, those with so-called idiopathic hypercalciuria.

When the patient is admitted, he is placed on a regular diet for three days with at least a quart of milk a day. Daily 24-hour urine analyses are obtained for calcium and phosphorus determination, and every morning a fasting serum calcium and phosphorus is drawn. This is important since it has been shown that there can be wide variations in the daily calcium and phosphorus. If the serum calcium is normal, but the patient excretes more than 250 mg. of calcium a day in his urine, and no other cause for hypercalciuria can be found, he is said to have idiopathic hypercalciuria.

The most important cause of stones is hyperparathyroidism, because with treatment it can be completely cured, but untreated it usually leads to chronic renal disease. The parathyroid hormone has been shown to have two separate actions. It acts directly on bone to mobilize calcium, and acts on the renal tubule to increase phosphorus excretion. The normal parathyroid glands are stimulated by a low serum calcium or high serum phosphorus; and conversely they are "shut off" by a high serum calcium or low serum phosphorus. However, the gland is autonomous in hyperparathyroidism and cannot be "shut off" by these measures. This fact is the basis of the tubular reabsorption of phosphorus and calcium infusion test.



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After three days of a regular diet, a fasting TRP test is made. The patient is then placed on a low calcium-low phosphorus diet. In the normal patient, the low phosphorus diet lowers the serum phosphorus. The lowered serum phosphorus "shuts off" the parathyroid glands, resulting in almost complete reabsorption of phosphorus by the tubule. Thus the TRP of a normal patient on a low phosphorus diet will be above 90 per cent, while in those with hyperparathyroidism, whose glands cannot be suppressed by the low phosphorus diet, the TRP is usually below 83 per cent.

The other mechanism to "shut off" the parathyroids would be to elevate the serum calcium, and this is the basis of the calcium infusion test as modified by Boyce. An infusion of calcium gluconate is started at 8 a.m. and completed at noon. The solution is prepared by adding calcium, 15 mg. per Kg. body weight, to 500 cc. of normal saline. It is important to remember that the standard 10 per cent solution of calcium gluconate contains only 9 per cent calcium, so that the usually supplied 1 Gm. ampule contains only 90 mg. of calcium. Serum calcium and phosphorus are drawn at 8 a.m., noon, 4 p.m., 8 p.m., and 8 a.m. the following morning. These values are then plotted on the graphs that I have distributed, using x's for the calcium values and zeros for the phosphorus. Only in hyperparathyroidism are the x's persistently above the zeros. The main value of the TRP test lies in differentiating between the normal and hyperparathyroid patient. It should be remembered that the TRP may be abnormally low in patients with metabolic disease or malignancy, and both of these are not uncommon causes of hypercalciuria. Boyce has shown that the calcium infusion test will differentiate these other disorders from hyperparathyroidism.

The patient is also given a roll of nitrazine paper and instructed to check and record the pH of every voided urine. The normal urine of course would be expected to fluctuate between an acid and alkaline tide. A persistently acid urine is seen with uric acid stones. On the other hand, a persistently alkaline urine suggests renal tubular acidosis or infection.

By plotting all the values on the chart, abnormalities may be picked up more easily. It is our hope that this screening test will pick up treatable causes of calculus disease which may otherwise have been missed until recurrent stones had caused irreversible renal damage.

HEMOLYSIS DURING TRANSURETHRAL RESECTION

(Continued from Page 966)

jaundiced. He was found to be anuric. Despite two hemodialyses by the renal service, the patient failed to regain satisfactory urine output and died 42 days after operation. Significant autopsy findings were necrotizing papilitis, right kidney, and extensive myocardial infarctions, remote.

Comment

In only Case 2 can it be established that transfusion reaction played no part, since hemolysis was diagnosed before any blood administration. However, since these are the only three postoperative hemolytic reactions with renal failure observed on this service in the last three years, it is reasonable at least to suspect the irrigating fluid as causative. We have been influenced by this experience to return to the use of 1.1 per cent glycine solution as an irrigating medium in transurethral surgery.

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Physiological Measurement of Bladder Outlet Obstruction

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THE PURPOSE of this study is to provide an objective physiological method for quantitating obstructions to flow at the vesical neck. The principle by which this is possible is the well-known law of Ohm: $E=IR$, where E = change in potential energy, I = flow of electrons, and R = resistance to flow. In terms of hydraulics, this law may be stated as: $P=FR$, where P = the pressure gradient, F = the flow rate of a fluid, and R = the resistance to flow. Thus, the hydraulic principle by which our study is possible can be stated:

$$R=\frac{P}{F},$$

or, the resistance to flow of a fluid across, a tube is equal to the pressure differential of the fluid across the tube divided by the flow rate.

To measure the resistance to flow across the entire urethra, we must simultaneously determine (1) the pressure in the bladder during micturition, P_1; (2) the pressure of fluid at the urethral meatus, P_2, and (3) the flow rate of urine, F. The formula for determination of resistance to flow across the urethra then becomes:

$$R=\frac{P_1-P_2}{F}.$$

This formula can be simplified since P_2, the pressure of the urine at the urethral meatus, is equal to the pressure of the atmosphere. This is true because by definition, the pressure of a fluid is measured at right angle to the direction of flow; therefore, P_2 must be equal to the atmosphere. The bladder pressure is measured with a manometer so standardized that zero bladder pressure equals atmospheric pressure. Therefore, P_2 = zero, and the formula becomes

$$R=\frac{P_{1-0}}{F}=\frac{P_1}{F}.$$

The method employed in measuring urethral resistance to flow in the adult male entails the following: a No. 5 French ureteral catheter is passed per urethra into the bladder and connected to a strain gauge manometer which is a very sensitive pressure transducer which converts pressure to electrical energy, allowing the pressure to be recorded in an electrical recording device. The strain gauge is in turn connected to a pre-amplifier-amplifier direct recording system. As the urinary bladder is considered a sphere and pressures at all points within a sphere are equal, the point at which the catheter lies within the bladder is insignificant. The bladder is filled to 250 cc. of water through the catheter, and the patient voids into a column at the bottom of which is connected another strain gauge which is also connected to the pre-amplifier-amplifier recorder. As the patient voids, the pressure within the bladder and the height of the column of water are recorded simultaneously. The cross-sectional diameter of the column is constant and known, and the strain gauge can be accurately calibrated to a certain unit deflection of the recorder per known volume of water. As the time interval of flow can be accurately determined, a flow rate can be determined, as flow rate equals volume per unit time. With the change in intravesical pressure constantly monitored, one can calculate the resistance at any given moment by using the formula:

$$R=\frac{P}{F}.$$

A series of twenty-eight normal adult males was studied by this method. Interpretation of results was made by means of graphs on which the horizontal axis represented time in seconds and the vertical axis represented: flow rate in cc./sc., the bladder pressure in cm. of H_2O, and resistance in terms of gram-sec-cm^{-5} (for convenience referred to as "R units"). The curves depicted represent the relationships of pressure, flow, and resistance to flow. At either end of the curves, since flow is zero, R is infinite. It was decided that the lower portion of the curve best depicts the resistance to flow across the urethra and vesical neck, and it is this portion of the curve from which subsequent calculations of "R" will be made.

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A. James Sniderman, at present, is a senior medical student at Wayne State University College of Medicine. Work on this study was done on a pre-doctoral research fellowship.

In this study, it was determined that the range of resistance to flow across the urethra and bladder neck is up to ten "R" units, but averages 5.5 and is usually below 7. Early obstruction was found to be in the range of 10-15 "R" units. Moderate obstruction was found to be up 16-20 units and severe obstruction greater than 20 units.

A series of twenty-two individuals were studied to determine the constant reproducibility of "R" values by this method. Satisfactory results were obtained as are shown. In some instances of severely elevated resistance to flow, we find cases of discrepancy of "R" values. This may be attributed to a markedly slowed flow rate being effected by slight changes in the obstruction, perhaps due to edema caused by repeated instrumentation when consecutive studies were determined. That is, slight alterations in flow can result in marked alterations in resistance.

Five individuals were studied before and after prostatectomy. It is shown that removal of their obstruction resulted in a very satisfactory decrease in resistance to flow to normal levels.

It is important to realize that, to accurately determine resistance to flow, one must know *both* the pressure or driving force, *and* the flow rate. Studies of flow rate or bladder pressure alone are really not accurate measures, nor is observation of the visual stream. This can be graphically illustrated in the instance of an individual with considerable vesical neck obstruction who voids a good stream, simply due to the high head of pressure he is able to muster. This phenomenon is what we refer to as the "fallacy of flow rate." May I emphasize that accurate determination of resistance to flow requires accurate determination of both driving force and flow rate.

It is proposed that this method offers a physiological, convenient, easily performed method to objectively evaluate the degree of obstruction of the bladder neck.

Reports Cancer Frequency Trends

The University of Michigan's Institute on Cancer Control heard Abraham Lilienfeld, M.D., of Johns Hopkins University, report that there has been an increase in lung cancer and leukemia, and a marked decline in mortality of stomach cancer in recent years.

Epidemiologists are finding relationships between cancer and various factors of living, he stated. Best known is the connection between lung cancer and smoking.

Other forms of cancer show a relationship even in geographic location. For example, the north central United States shows a higher mortality from gastric cancer than the rest of the country, he said, while cancer of the esophagus is highest in northern parts of the United States.

Several studies, he reported, indicate a relationship between alcohol consumption and certain types of cancer, particularly of the liver.

Use of Double Lumen Catheter In Extracorporal Dialysis

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EXTRACORPORAL hemodialysis remains the most efficient and rapid method of control of endogenosis toxicity during the oliguric phase of acute renal failure. In addition, the resultant effects following the ingestion of exogenous toxins such as methanol[1] or the overdosage of barbiturates[2] can rapidly be reversed with the artificial kidney.

It is our purpose to present a double lumen catheter which has been found to have many advantages when used as a cannula in hemodialysis. Its use was first reported by McIntosh.[3] Following this report, it was utilized in 22 patients in this hospital. The double lumen catheter consists of a nontoxic vinyl plastic 59 cm. long. The two lumina are spaced 19 cm. apart. The distal end is a single lumen and has an outside diameter of 3.99 mm. The double lumen section is 6.65 mm. The inside diameter of both lumina is 2.31 mm. The catheter is made to fit the connectors of the Kolff disposable twin coil unit. This catheter is manufactured by the United States Instrument and Catheter Corporation, Glen Falls, New York.

The main advantage in its use is speed. Extracorporal hemodialysis is a lengthy procedure and the actual dialysis time cannot be shortened; however, the time required for the cut-down can be appreciably reduced with this catheter. Normally the radial artery at the wrist and usually a tributary of the cephalic vein or the antecubital vein are utilized as the outflow and return-flow for the artificial kidney. These vessels are cannulated with tapered plastic catheters. This naturally requires two cut-downs. The double lumen catheter is inserted through the greater saphenous vein at the level of the fossa ovalis into the vena cava. Actual cut-down time is often as short as 10 to 15 minutes when this incision familiar in saphenous vein ligation and stripping is used.

This location of the cut-down precludes the rare but potential hazard of arterial insufficiency to the hand, especially in the elderly arteriosclerotic patient, as well as the possibility of injury to the median and radial nerves and their important functions of sensation and innervation of the hand. In addition, the location of the double lumen catheter adds to the patient's comfort both during and after dialysis by allowing free use of both upper extremities.

An advantage is present in the patient with cardiac failure. This complication is frequently present in acute renal failure especially when the patient has been over-hydrated. Diversion of 200 to 400 cc. of blood per minute from the cardiac output to the artificial kidney via a radial artery cut-down and returning it to an already overloaded venous system can produce an obvious deleterious effect. This is circumvented with the use of a vein to vein technique especially when in the form of the double lumen catheter.

The efficiency of this catheter has been equal or superior to that of the arterial venous cut-down when the optimal blood flow rates, fall in serum blood urea nitrogen, the amount of urea removed in the dialyzing bath, and the reduction of body weight are compared. In only one case were the blood flow rates less than the desired amounts. This was thought to be secondary to the adherence of the proximal catheter lumen to the vessel wall and was easily corrected by advancing the catheter up the vena cava.

Naturally, there is concern that there will be admixing of the outflow and inflow blood with this catheter. If this contamination occurs there would be a reduction in the gradient of solutes across the dialyzing membrane. Experimental evidence as well as chemical analysis of the patient's serum and blood returning from the artificial kidney suggest that this is not a problem. Dye was introduced into the return tube and blood simultaneously drawn from the tubing carrying blood to the artficial kidney. This latter sample was analyzed and in two out of three cases no dye was recovered. There was only a trace present in the third case. In addition, comparison of the blood urea nitrogen concentration in the patient's arterial blood and that of the blood flowing to and from the kidney revealed low concentration in the return flow and approximately equal concentration in the outflow and arterial blood.[3] The concern regard-

ing admixing of the outflow and inflow blood is probably of minimal importance. One patient was dialyzed for two hours with the normal catheter hook-up to the artificial kidney reversed. The serum blood urea nitrogen and potassium drawn from a peripheral vein at the end of this period fell from 245 mg. per cent to 157 mg. per cent and 7.5 meq. to 3.7 meq. per liter, respectively. This would suggest an efficient dialysis for this period of time.

In patients requiring frequent multiple dialysis, the number of cut-down sites may rapidly be depleted when the arterial venous route is utilized unless the indwelling A-V fistule appliance as described by Scribner[4] is used. The advantage of the latter appliance is that multiple dialysis can be performed once it has been inserted, but its insertion is time consuming and requires careful tailoring to the individual patient. In an attempt to gain this same objective, the double lumen catheter was left indwelling in three patients. The patency of the tube was maintained with fluid dripped in slowly. Subsequently dialysis were performed in 48 to 72 hours. Two of these patients succumbed to their disease and at autopsy there was no evidence of thrombosis, phlebitis, or erosion of the vena cava from the catheter. Moncrief,[5] in a report of 135 cases of femoral catherizations in acute burn patients, found that these complications were minimal if the duration of catherization was 10 days or less.

Cannulization of the vena cava with this large lumen catheter also allows rapid injection of contrast media into the venous system. This allows one to obtain a vena cavagram, an intravenous aortagram, and delayed excretory pyelograms in a single study. These studies can demonstrate the renal vessels to rule out renal venous or arterial occlusion or bilateral obstructive uropathy. Surgical correction of any of these problems can be life saving.

In addition to leaving the catheter indwelling for subsequent dialyses, two patients had repeat catheterization of the greater saphenous vein which had originally been cannulated five and seven days previously. These were performed without technical difficulty and no evidence of thrombosis was present in the vein.

In summary, the double lumen catheter has the advantages of speed, decreased hazard and morbidity to the circulatory system, equal efficiency, the potential of multiple dialysis when left indwelling, and a useful cannula for radiographic studies of the renal vessels, and excretory pyelograms.

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Schizophrenia Theories

The search for a biochemical basis for schizophrenia is full of scientific pitfalls, Dr. Seymour S. Kety declared in an address at the University of Michigan where he received the first Stanley R. Dean Award.

Dr. Kety, chairman of the Department of Psychiatry at Johns Hopkins University Medical School, honored for his work on schizophrenia theories, said "the history of these efforts has shown repeated instances in which 'sensational findings' have failed to be supported by further scientific investigations."

He said, "Biochemists are seeking abnormal substances in the body fluids of patients and hoping to connect them with faulty brain or nervous system metabolism."

Effect of Renal Ischemia on Urinary Alkaline Phosphotase in Adult Mongrel Dogs

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THE RENAL tubule cells are high in alkaline phosphatase content. This has been shown quite adequately by such workers as S. L. Bonting and V. E. Pollak. They showed that alkaline phosphatase was found in fairly large quantities in the nephron of man, monkey, dog, rat, and rabbit. Ischemic lesions such as acute tubular necrosis might be expected to release this substance into the urine. In rats, Lunseth demonstrated the release of alkaline phosphatase into the urine following renal ischemia. Breedis, et al, showed that there was a marked increase in the concentration of urinary alkaline phosphatase in rats and rabbits following the parenteral administration of uranium nitrate. Due to the inconsistent results following similar experiments in different species, we chose the dog as the experimental animal.

Method

Twenty adult mongrel dogs of average weight were divided into four groups of five dogs each. These groups were designated as A, B, C, and D. With the dogs under adequate pentobarbital anesthesia, an intravenous infusion of 10 per cent glucose was begun to provide an adequate diuresis to facilitate collection. In all dogs, a midline incision was utilized. The ureters were isolated and clamped and divided distally. Each ureter was then catheterized with a No. 6 F ureteral catheter and tied in place. A 10 cc sample was then collected from each kidney as a baseline. At the same time a blood sample was taken. In group A, the left renal pedicle was cross clamped with a bulldog clamp for 15 minutes. In groups B, C, and D, the pedicle was clamped for 30, 60, and 120 minutes respectively. In all groups, the right kidney served as a control. The incision was then closed in layers, bringing the ureteral catheters out through the inferior portion of the incision and secured with ligatures and tape. Collection of urine from each catheter was then made at ½, 1, 2, 3½, and five hours after removal of the bulldog clamp. With the five-hour collection of urine, a serum specimen was also obtained. The glucose was then discontinued and the animal returned to its quarters. The following day, the dog was again anesthetized and an infusion of 10 per cent glucose begun. Collections were taken from each ureteral catheter and also a serum sample obtained. The dog was then sacrificed by an overdose of pentobarbital and the abdomen was opened. In all instances, the catheters were in their respective ureters. Kidney biopsies were then taken and placed immediately into formalin. Inspection of the pedicle revealed no thrombosis.

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Results

The alkaline phosphatase was determined by means of a Coleman spectrophotometer. For convenience, a graph was made which elicits the average results of each group with respect to the urinary and serum alkaline phosphatase. We found no alkaline phosphatase in the urines obtained from either side before cross clamping. The urine from the right kidney, which served as a control, never had any demonstrable alkaline phosphatase. The urines from the left kidney (uniformly) all demonstrated alkaline phosphatase. In all groups, the highest concentration of alkaline phosphatase was found to be by the fifth hour of collection. The values then gradually fell, approaching zero by 24 hours. There was not much correlation with respect to the elevation of urinary alkaline phosphatase in milligrams per cent when compared to the length of time of ischemia. For example, in group A, at the two-hour sample, the range in milligrams per cent is from 1 to 36, and in group D, for the similar period, the range is 2.6 to 45. It should be mentioned, however, that the number of anuric dogs with respect to the clamped kidney increased with the length of time of ischemia. In group A, no dogs were anuric. In group B, two dogs were anuric for 1 and 2 hours respectively following cross clamping. In group C, three dogs were anuric. All for 1 hour after the re-

lease of the clamp. In group D, all five dogs were anuric for varying periods of time following the release of the clamp. One dog never put out any urine from his left kidney in spite of an adequate infusion of 10 per cent glucose. Histological specimens correlated well with ischemic time and varied from tubule cell vacuolar changes in group A to frank tubular necrosis in group D. The serum alkaline phosphatase increased uniformly, with a maximum value at 24 hours.

Discussion

It can be seen then that renal ischemia in dogs produces urinary alkaline phosphatase. From our studies, the rise is at its maximum by the 5th hour after ischemia. It is interesting to note that the rise in serum alkaline phosphatase begins at about this time. This might be explained by the release of renal alkaline phosphatase into the venous return as well as into the urine.

Recent studies by Vorrilli, et al, have shown the elevation of serum alkaline phosphatase following trauma or ligation of the renal pedicle in dogs. Our experiment substantiates this. In addition, we have shown the elevation of urinary alkaline phosphatase.

We are now in the process of collecting urine from patients undergoing major surgery. Collections will be made preoperatively, and then at one and five hours postoperatively. We hope to be able to predict the presence of impending acute tubular necrosis. Perhaps, these will be the persons that should have prophylactic mannitol infusion.

Summary

Experimental renal ischemia has been produced in dogs. The results are as follows:

1. There is a marked elevation of urinary alkaline phosphatase following ligation of the renal artery and vein in the dog. Peak concentration is obtained by the fifth hour.
2. Serum alkaline phosphatase is elevated after renal ischemia with a maximum value reached at 24 hours.
3. The amount of renal tubular cell damage correlates well with the time of experimental ischemia.

The possible clinical applications have been discussed.

Many Mentally Ill Receive Insurance Help

Many of the 500,000 mentally ill patients now being treated in state and local government hospitals have health insurance provided by insurance companies which customarily protects against the costs of in-hospital treatment of nervous and mental disorders.

"The insurance business for many years has recognized mental illness as an illness in the same sense as physical illness. Coverage for nervous and mental disorders has been a feature of many insurance company health cost plans and policies since before World War II," reports the Health Insurance Institute.

Insurance companies currently provide hospital expense insurance to more than 81 million persons, said the Institute. Of this total, more than seven out of every eight persons have the same benefits for nervous and mental disorders as for other conditions.

Repair of the Denuded Penis

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AVULSION of the skin of the penis and/or scrotum is an uncommon but urgent situation and the sight of a completely denuded penis with the testes hanging by their cords may be quite terrifying to the patient.

In the past, a great many of these problems followed necrosis and sloughing of the genital skin secondary to extravasation and/or infection. Technical errors during circumcision as well as losses of skin secondary to granuloma inguinale and military trauma may have a similar outcome. Operative denudation is sometimes necessary in the treatment of refractory lymphedema. However, in this mechanized age, the most common cause is probably what Brown has chosen to call the "power take-off injury."[1,2,3] What happens is that the moving elements of farm machinery engage the trouser leg and twist it up to the genital area. Here the thin, elastic, redundant skin of the scrotum and penis is grasped and avulsed, often in one piece. The skin of the penis usually tears loose at or just behind the coronal sulcus and the glans is thus spared. This type of injury rarely involves the corpora or the spermatic cord as the overlying skin is so loosely attached. The cleavage plane is probably along the dartos and colles fascial layers superficial to the cremasteric muscle in the scrotum. The cremasteric reflex may be the cause of testicular sparing. Surprisingly these patients are usually free from severe pain when first seen.

Complete denudation of the skin of the penis and/or scrotum creates an acute problem as to saving and covering the testes, cosmetic repair and resurfacing of the penis and the necessity to obtain a functioning phallus in as much as the psychological injury may be more severe than the physical one.

Case Report

On August 17, 1960, a 74-year-old man was initially seen in the emergency room at the University Hospital, four hours after a typical "power take-off injury." His trousers had become caught in the working parts of a threshing machine with resultant complete denudation of the phallus and anterolateral scrotum. The individual testes were noted to be free of their coverings and suspended by the spermatic cord (Fig. 1). Bleeding was minimal, the remaining tissue except for portions of the scrotal skin viable and the patient's general condition satisfactory.

In the operating room, the area was cleansed and debrided. Enough scrotal skin was available to cover the testes but certainly not enough to incorporate the penis. Therefore a split thickness skin graft (STSG) from the medial thigh was utilized to resurface the penis (Fig. 2). A urethral catheter was maintained for one week and the operative area immobilized as to be described. The graft "took" completely, and the patient was discharged on the tenth postoperative day. When first examined three weeks after grafting, the site appeared somewhat thickened and non-pliable but within eight weeks was soft, had some sensation, and withstood sexual intercourse (Figures 3 and 4).

Repair of the denuded penis may be carried out, utilizing pedicle flaps from the scrotum to cover partial defects (Fig. 5). Also, where there has been damage to the corpora with anticipated deep scarring, a pedicle graft may be desirable in order to secure a thicker covering. Pedicle scrotal flaps are extremely advantageous because of their great elasticity but pedicle flaps from other surrounding areas have been found to be too thick, inelastic and lacking in sensitivity.[3,4] Scrotal skin can also be utilized by burying the denuded penis in a subcutaneous scrotal tunnel with subsequent freeing of the penis at a second operation[5] (Fig. 5 b, c, d).

However, in many cases as in the one presented, available scrotal tissue may not be ample enough for resurfacing the penis. In general, enough scrotal skin is almost always available for a primary scrotal closure and should always be utilized in reconstruction. The elasticity and great viability of these tissues should never be forgotten. If the scrotum should be completely denuded, many authors have advised pedicle skin grafts from the medial aspects of the thighs; other split thickness skin grafts utilized as "envelopes" to each testis and spermatic cord. The bifid scrotum thus created may be revised at a later time.[6]

The major function of the scrotum is that of a

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thermo-regulator and the temperature of the newly created scrotum should approximate that of the normal. Moore[2,3] demonstrated that temperatures from two to eight degrees below that of the intrabdominal



Fig. 1. Condition when first seen.



Fig. 2. Split thickness skin graft used to resurface the penis.

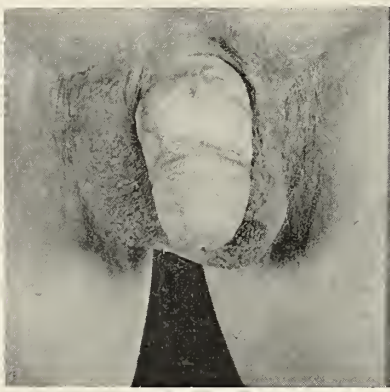


Fig. 3. Two months postoperative.

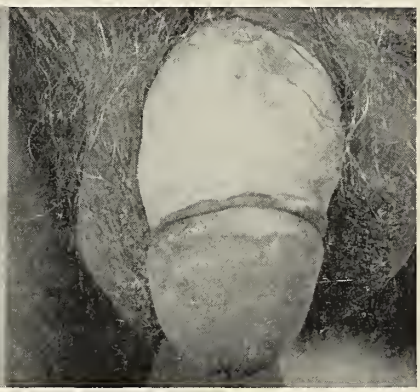


Fig. 4. Two years postoperative.

area are necessary for normal spermatogenesis. Culp and Huffman[7] found that the temperatures in the superficial thigh approximated those of the scrotum and that in all cases the temperature of the deep thigh paralleled intra-abdominal temperatures. These latter authors noted normal spermatogenesis after reimplantation just under the skin. Utilizing this technique, Brown found that the testicles thus implanted tend to form their own scrotum and many patients do not desire further revision.

In the absence of available scrotal skin with which to resurface the penis, most surgeons have turned to the STSG. Very often, following injury, a rim of skin just proximal to the coronal sulcus remains. This should be excised in as much as poor lymphatic drainage postoperatively may result in edema and subsequent constriction. A relatively thick (.018-.024 inch) STSG from an essentially non-hairy area (thigh or lower abdomen) should be obtained with a conventional dermatome. The width of the strip of skin obtained with the Brown or Padget dermatome is ideal for resurfacing the penis. A urethral catheter is inserted preoperatively, the wound cleansed, debrided and hemostasis obtained. The penis is maintained in an extended position and "wrapped" in the graft. Fine (5-0) dermalon sutures are utilized in suturing the graft to the skin about the base of the penis and scrotum as well as peripherally about the glans. The borders of the graft should be approximated loosely, preferably on the dorsal surface in order to prevent troublesome postoperative contracture with ventral chordee. "Piecrusting" of the graft will permit better drainage and provide a better "take." The grafted site is then covered with a fine mesh gauze and a large amount of bulky mechanic's waste. If desired, the sutures along the proximal and distal borders of

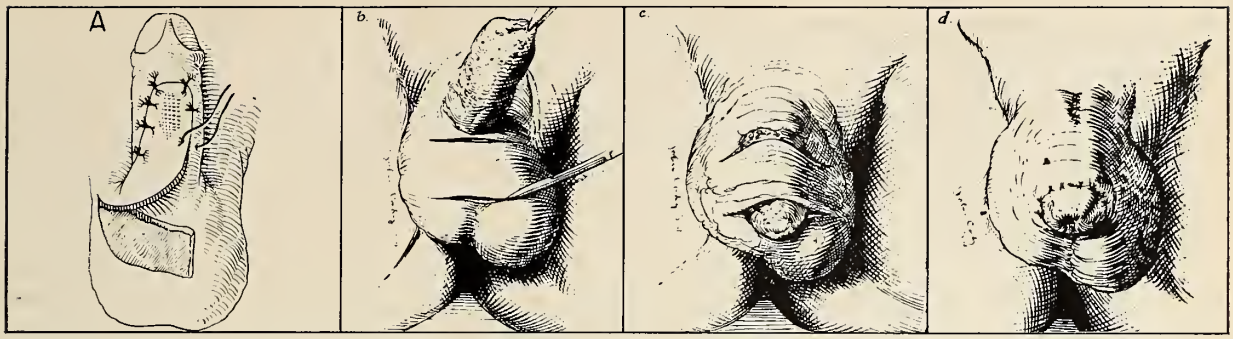


Fig. 5 (*a*). Method of using pedicle flaps from the scrotum. (*b*, *c*, *d*) Method of using scrotal skin by burying denuded penis is a subcutaneous tunnel. (Reprinted from *Southern Medical Journal*—Wilson and Wilson).

the graft may be left long and tied over this bulky dressing to insure a constant gentle pressure and maintain the extension of the penis. The penis thus dressed may be placed in a circular cage or sutured to the lower abdominal wall to once again maintain its extension. The glans is always left exposed so vascular impairment may be noted immediately.

The original dressing should be maintained from four to five days. Prophylactic antibiotics are not essential. The urethral catheter and sutures may be removed on the seventh postoperative day and after this period no further dressings are required. In the early postoperative period, the graft site may appear somewhat thickened, non-pliable and mildly lymphedematous but softening and return to normal texture occur within four to eight weeks. Minimal loss of penile sensation may result.

Summary

Scrotal skin is highly desirable in resurfacing the denuded penis but if the area to be covered is large or adequate scrotal skin is not available, a relatively thick STSG provides excellent coverage.

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Directory of Blood Transfusion Facilities and Services

Greater proportionate use of packed red cells and plasma, two major components of whole blood, is revealed in a new Directory of Blood Transfusion Facilities and Services released by the Joint Blood Council of Washington, D. C.

The 4,578 listed blood-handling institutions include hospitals, Red Cross and community blood banks which collected over six million units during 1961. There were 4,216,861 units transfused. The previous directory two years ago reported 3,623,432 transfusions from 3,779 listed facilities.

Included also in the 1962 directory are the central and regional consultative reference laboratories of the American Association of Blood Banks, the committees on blood of state medical societies, and state blood bank associations. Names and addresses of corresponding officials are provided in this section.

Pathology Comment

Items published here are provided by the Michigan Pathological Society

Serum Electrolytes in Children

Clinicians occasionally tend to forget that children are not "miniature adults" as far as their blood chemistries are concerned. The ranges of normal values have been reported by Gyllenswärd and Josephson[1]; the accompanying table illustrates normal value limits within which 90 per cent of the results from normal subjects will be found with a confidence of 95 per cent if their methods are used.

NORMAL VALUE LIMITS IN CHILDREN (mEq/LITER SERUM)

		Newborn	*3 mo.*	*6 mo.*	*9 mo.*	*12 mo.*	*3-6 yr.*	*Adults*
Na	(upper)	154.6	150.7	145.7	148.4	157.2	144.2	141.1
	(lower)	122.0	117.5	119.9	116.6	110.8	115.7	118.5
K	(upper)	5.46	6.48	6.25	6.11	5.90	5.69	5.32
	(lower)	3.84	3.99	3.84	3.95	3.75	2.69	3.01
Ca	(upper)			13.99	13.30			
	(lower)			8.61	9.78			
Cl	(upper)	109.2	148.7	136.7	135.8	137.4	121.0	108.4
	(lower)	106.2	78.4	80.9	81.4	78.2	80.9	103.0

The fact that sodium, potassium, and chloride have nearly the same concentration in the newborn as in adults may be the result of a diffusion equilibrium between mother and fetus. The rapid increase of the potassium concentration and the decrease of serum sodium during the first three months of life has been attributed to insufficient aldosterone production as a result of "adrenal immaturity."[2]

pH Values Also Differ

The pH of the blood, plus the oxygen saturation and the carbon dioxide concentration have also been studied quite extensively in premature infants. The healthy premature infant has a mean blood pH of 7.31 (bordering on acidosis); this acidity is probably of metabolic rather than respiratory origin. Even older children seem to have a lower CO_2 tension than adults.

Electrolyte studies in children all tend to show high standard deviations from mean values. The chemical composition of the blood changes rapidly during the first days after birth, with other significant changes during the first three months and then slower alterations toward adult limits from 3-6 years. Of course, race, climate, nutrition, and many other factors are important. Natelson found that breast-fed children may show higher sodium, chloride, calcium, and blood urea nitrogen levels during the first month; those on cow's milk have a higher serum phosphorus.[3] He found no significant difference in serum potassium in the two groups.

References:

1. Gillenswärd, C. and Josephson, B.: Serum electrolyte concentration in normal infants and children. Scand. J. Clin. & Lab. Inv., 9:21-28, 1957.
2. Josephson, B.: Composition of the body fluids in childhood. *In*: Advances in Clinical Chemistry. Vol. I. New York: Academic Press, 1958.
3. Natelson, S.: Microtechniques of Clinical Chemistry for the Routine Laboratory. Springfield: Charles C Thomas, 1957.

New Generation in Urology

The Editor assigned me the pleasant responsibility of collecting the technical papers for this issue of THE JOURNAL of the Michigan State Medical Society. The assignment was easy.

I have made this selection from a series of papers presented by residents in the urology residency programs in the area. The criterion for selection has been a geographic spread.

I think you will observe that all the papers are oriented toward clinical problems in the genitourinary system. This was not a basis for selection, for all of the thirty papers surveyed bore this same distinction.

This makes a very heartening endorsement of this new generation in urology, and it would be redundant to suggest that this is, indeed, good for American Medicine and the care of people.

WILLIAM BROMME, M.D.

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Medical Future

Summer is the interim time wherein we take vacations, establish re-arrangements and plans for the future as well as looking backward at what has been accomplished. For medicine this certainly holds true. For many years we have been fighting for continued self determination, and the Michigan State Medical Society and the American Medical Association have done a thoroughly competent job in opposition to the pet project of the President and his administration.

The profession has been given the undeserved reputation as "always against." Those on the opposite side of our particular philosophy point to many instances where we have opposed proposed legislation, but they never recall the tremendous number of good, important and far-reaching benefits the profession has sponsored. They are even attempting to take away from us credit for the health programs promoted for over many years; also the responsibility in modern medical education which has undergone such a tremendous change in this century. The profession secured the laws under which new and better medical colleges were built, newer and better hospitals, pure foods and drugs, to mention just a few in which Medicine had a dominant and leading program. Just at present over the whole world, politicians, economists and bureaucrats are trying to dictate and to edge into the program so they may dominate.

Care for Retired

Care for the aged, medicare, as it is now being called, is still to the forefront with advocates in high places accusing the medical profession of having no interest in the older people and not making provision for their care. The very fact that we have these older people is testimony of what medicine has done the last two or three decades. During the desperate times of the great, historical depression, which could be re-established so easily, medicine evolved the program of prepaid medical and hospital service care, building upon the experience that active doctors in the field were having their patients and their families and their desperation in paying for medical service. The Blue Cross-Blue Shield program, which grew out of this, very thoroughly answered the problem. The concept was so successful that the insurance companies whom we had begged to offer such insurance finally saw the light.

From the first, Michigan Medical Service and the other medical service plans provided a method by which people reaching the retiring age could continue their membership, mostly under group and group conversion programs, with no cancellations due to age. The present universal or governmental advocacy of medicare for the aged was borrowed from medicine, but distorted into an inadequate program. Candidate Kennedy took up this cry as a vote-getting method before he became President and has followed through on the same idea. He accuses the AMA of being opposed to the older people and opposed to social security. Both of these statements are misleading and unfair. Every Blue Shield program has provision for the aged, with no age limit, and adequate methods by which this protection can be continued. The AMA House of Delegates and its various executive officers have followed through with this program.

The concept we are fighting in the administration's bill is not care for the aged. It is the completely inadequate financing of partial care which they are offering, but which the general public believes will be approximately equal to Blue Shield, and social security carrying the program. This ties in with AMA's position on social security. When social security was first organized, it was done for a very definite purpose: to retire people at age 65 so as to create jobs for laborers of lesser age who did not have jobs during those depression years. It was a compulsory program. At that time the AMA offered to take it on a volunteer basis and many thousands would have joined. The doctors could not see themselves quitting work at 65 which this program would have demanded, withdrawing benefits every time a man earned over a fixed amount per month. Medicine would have approved the program all these years under a voluntary basis, and still would. A basic feature of social security is that it is a cash benefit, paying so much cash to the individual who is the beneficiary and allowing him to spend that money as he sees fit. That is the basic social security philosophy. The administration is now trying to place under that group not benefits by which people buy their medical and hospital services, but purely hospital services, constituting a complete shifting of method. This states our position again, and we believe we should continue stating that position until Congress has either satisfied the President, or satisfied us.

All reports at the middle of June point to the fact that Kennedy will relax somewhat in his demands on the medicare program. He has offered to arrange or accept some compromise, but Kennedy in this instance has shown an actual adamant position. One needs to recall what he did to big steel. He moved the steel industry right back on no price increase after his men had established a 10 cents per hour increase in labor's pay. He used his power. Neither big steel nor any other industry has yet been able to work out any satisfactory solution. One solution did come. The stock market went down from a quarter to a third in the prices of its securities. We fear any compromise he may offer in the medicare bill (which could come out of Congress at any time) would be just as unsatisfactory because he positively stated he would insist on the social security program.

Kerr-Mills-AMA

The administration and its departments and bureaus and many states, even our own, are claiming the desperate need for care for the aged, because the "Kerr-Mills Act is inadequate and unworkable" as they say. The administration did not want it to work. The Governor claimed it was inadequate and stated it could not work, that there are over 638,000 persons in Michigan over 65 and only just under 12,000 got benefits and that only in the amount of $12 million. (The *Detroit Free Press,* May 23, 1962 quoted William J. Maxey, Director, State Social Welfare Department: "12,000 persons received $12 million in benefits in the first 12 months of the program.") The Kerr-Mills Act has in it an allowance for the States to set various limits. The State of Michigan has set the income required too low, $1,500 for an individual and $2,500 for man and wife. Persons within that limit are eligible and that will cover only about 60,000 in Michigan.

Throughout the state, many of these patients have received adequate attention, equal to that allowed through Blue Cross-Blue Shield. In Detroit, only the city hospitals and certain privately owned are taking these patients. The big hospitals could not afford the monetary loss, 30c on every dollar, which they would have to recover from their other patients. We submit

that under these circumstances 12,000 is a big number, and $12 million is also a big number of benefits provided in one state. Michigan needs a few better understandings of its efforts to care for its aging needy.

Why recall all this information? One executive act in Washington could put this whole program into operation and, fearfully, put the medical profession under administrative control.

Annual Session

We are looking forward to the Ninety-Seventh Annual Session of the Michigan State Medical Society in Detroit. We anticipate a most enjoyable and most rewarding time. The program as offered will be extremely valuable. We hope every member who possibly can will attend at least one day's session.

Thanks

This number of THE JOURNAL is devoted to Urology. All the papers on that general subject have been secured through the efforts of William Bromme, M.D., representing the urological group in the State of Michigan. We offer our most sincere thanks.

Is the Medical Bill Good for All Ages?

By *David Lawrence*, Washington, D. C.

More "medical care for the aged" is how the Administration's plan is usually described, but it may turn out to mean "less medical care for all ages."

The program championed by President Kennedy with the best intentions can bring about a tragic setback for old, for middle-aged and for young people.

Instead of providing medical care for one age group, the end result may be not enough doctors to take care of the sick generally.

In Great Britain, after 14 years of "socialized medicine," many people now call it a "mess." Many young British physicians are emigrating to other lands. They see no future in Britain because of low incomes, overwork and lack of opportunities to specialize.

* * *

Nobody is proposing the British system of "socialized medicine" be duplicated in the United States. But the critics of the Kennedy proposal are convinced it will inevitably produce some of the evils of "socialized medicine."

With the growth of population in America, medical care, while of a high standard, is not as readily available as it used to be. Few doctors can take time for house calls. Many doctors' offices are crowded with patients. There's a tendency to run to the doctor for all aches and pains. If medical care is to be paid for in large part by the government, this tendency will increase and thus bring a deterioration in medical care generally because of a shortage of physicians.

Under a proposal now before Congress, it is planned to start 20 new medical schools and 20 new dental schools with state and Federal matching funds. But where will the teachers come from? They, too, are scarce.

* * *

The importation of more physicians from other countries—where medical standards in the schools are questionable—would seem inevitable. Last year almost 20 per cent of the doctors admitted to practice in this country came from foreign medical schools.

Family physicians, as compared to specialists and surgeons, are already too few. The small towns and rural areas are most desperately short of physicians.

There's a marked trend, too, toward leaving private practice to go into research, teaching and hospital administration. The government itself is using more and more doctors.

* * *

Hospital admissions are up about one-third over what they were 10 years ago, despite the supposed improvement in national health.

Hospital rates are higher. Private medical insurance is growing in scope and coverage. Now, with the Federal government stepping in to pay hospital bills from billions of dollars to be collected through an increase in Social Security taxes, hospital cases will increase, doctors' offices will be more crowded and citizens of all ages will suffer from the acute shortage of doctors' time.

It's the same old story of private initiative versus a socialized state where the government tries to do everything. It may sound like good politics today, but eventually the facts catch up with the propaganda arguments.

Loan Fund Established

With the approval of both the program and agreement with its fiscal agent by Berrien County Medical Society, the Medical Student Loan Fund is ready to accept contributions.

The Board of Selection includes Doctors Donald Thorup, Paul Rague and John Strayer; Eitel Eberhardt, banker; Robert Small, lawyer; Edward Zabel, retired principal; and W. John Kenfield, M.D., BCMS secretary, ex-officio member. Contributions of $25.00 or more are being sought.

Annual Reports

Annual Report of The Council

The Council met as a whole eight times during the year. A total of twelve days were spent in deliberation. Some 912 items were considered.

Membership

Membership as of June 30, and as of December 31, from 1935 to 1962, is indicated in the following chart:

	1935	1945	1955	1959	1960	1961	1962
June 30	3,410	4,425	5,503	6,461	6,660	6,639	6,776
December 31	3,543	4,686	6,109	6,652	6,714	6,775	

The Scientific Side

In keeping with the long MSMS tradition of service, the scientific work continued during the past year to be the greatest benefit to the members and thus the most important service to the public. The following scientific activities head an impressive report:

1. The 1961 Annual Session in Grand Rapids drew a total registration of 2,579, including 1,434 M.D.s, for an outstanding program of scientific education.

2. MSMS members stamped as successful the 1962 Michigan Clinical Institute. Participation during the three days was steady—from the 8:00 a.m. discussion groups to the 8:00 p.m. evening seminars. Total attendance was 2,195, including 1,035 M.D.s.

3. MSMS, the University of Michigan Medical School, and the Wayne State University College of Medicine, joined to present another year of excellent extra-mural postgraduate courses throughout the State.

4. The Journal of the Michigan State Medical Society, evaluated this year as "one of the best," continued to provide scientific papers by noted Michigan and national medical authorities.

5. Designed "to add years to life and life to those years," the MSMS Presidents Program gained momentum. Approved by the 1960 House of Delegates, the program focuses on scientific activities and cooperative ventures with allied health organizations.

6. Stellar scientific meetings and clinics have been held by the 55 component societies in the continuing education of their members.

7. This year, perhaps more so than in recent years, scientific material was explained to the public by MSMS members effectively through press, radio, and television. Interest in the details about good health and medical care continues to climb in popularity with the public.

Finance

The new MSMS Headquarters Building has now been occupied for a full year and all costs of construction have been paid. The Council, at its meeting of January 1962, approved continuation of the allocation of $15.00 per member's dues to the maintenance and debt retirement of the headquarters. Thus far in 1962 the debt has been reduced to $100,000 as a part of the plan to pay due notes early in the year and re-borrow funds as needed later in the year. This procedure results in a savings of approximately $4,000 per year in interest payments.

The reserve of $35,000 in bonds for Public Relations has been maintained intact and the special expenses authorized by the April 1961 House of Delegates were paid from current income in 1961. Also, approximately $22,000 in government bonds has been held in reserve for the Society's General Fund.

Most committees and activities of MSMS are operating well within their allocations as estimated and approved in January. It is expected that unless some unforseen emergency arises, 1962 should be completed within anticipated income and expenses and that a net gain in total Society activities (exclusive of building debt retirement of $50,000), should result.

All departments are being operated as economically as possible in line with fulfillment of complete and necessary functions in this year critical for Medicine on both the state and national level.

Because of its debt, the Michigan State Medical Society is necessarily cost-conscious. The State Society saves money when meetings are scheduled at MSMS headquarters. Pertinent committee data is always at hand. The Finance Committee recommends to all committee chairmen that whenever possible, meetings should be scheduled at MSMS headquarters.

The Journal

The Journal of the Michigan State Medical Society was established in 1902. The first issue was published in September of that year under the direction of Andrew P. Biddle, M.D., Secretary of the Society. A few dedicated men with visions of the future had decided that the old method of annually publishing "transactions" was not of sufficient value to keep the members posted on the very advancing position of Medicine. Even in those years, a monthly periodical was considered necessary. With the August number this year, we shall actually have completed 60 years of that publication, 720 numbers.

In its very early issues, THE JOURNAL assumed a rank in medical journalism peculiar to Michigan. Doctor Biddle was an artist and a dreamer looking to the future. He established a philosophy of medical journalism, combining a "house organ" with a scientific publication, making THE JOURNAL the spokesman and the reporter for the State Medical Society and its branches, its Council and the House of Delegates. In early times, each county medical society was requested to send in reports, minutes, or records, of its accomplishments as they held meetings. Papers presented at the Annual Session were used, others were solicited from friends and acquaintances, the medical schools, and the larger medical societies.

In those early days, THE JOURNAL was not a strictly metropolitan organ but it covered in its original articles, in its committee reports, and in its other official reports, the whole state. We have continued during the years to make THE JOURNAL a spokesman and an organ for representing the whole profession of the state. During the years, the sources of securing original articles became inadequate and the problem of obtaining well-written original papers for THE JOURNAL was solved 15 or 16 years ago when it was decided to devote each number of THE JOURNAL to some specific activity or interest of the profession and its members. At first we selected definite interest groups, but as time passed, groups which felt they would care to sponsor a number of THE JOURNAL were welcomed and encouraged to do so. Not much urging was required to start this program and in late years the requests for issues by segments or sections have been enthusiastic and very gratifying to the Publication Committee, indicating that our effort in conveying the ideals and ideas to our membership is a success.

THE JOURNAL grew during the years until in 1960 it contained 1,912 text pages, 74 House of Delegates pages, 148 Directory pages, a grand total of 2,134 pages. Late in that year, however, it became evident that political pressure was curtailing the medical journal advertising on a national basis, and during 1961, the size of THE JOURNAL was curtailed in order to keep it within income bounds. In 1961, we published 1,598 pages of text, an 8-page roster of State Medical Society committees, and 96 pages of House of Delegates procedures, making a total of 1,702. In that year, we had 170 authors of original papers in which eleven names appeared twice, and one a series of papers on the same general topic. We had 60 book reviews in addition to the acknowledgments, 73 editorials and 16 editorial comments, 12 President's pages, and 77 obituaries. There have also been four legal opinions published.

THE JOURNAL issues which have been published since our last report have been dedicated as in the past to special interests with specially designed covers and special make-up. To continue the listing from last year's report, our October issue was on Aging and we are indebted to A. Hazen Price, M.D., and Charles W. Sellers, M.D., of Detroit for accumulating the material and offering suggestions. John G. Bielawski, M.D., Detroit, was the coordinator for the Heart (November) issue and furnished the majority of the original papers.

December was dedicated to the Calhoun County Medical Society with Doctor Alfred Hamady doing most of the spade work; the cover illustrated three modern and four historic hospitals located in Calhoun County.

For the current year of 1962, the January number was given over to the Michigan Clinical Institute, February was the Michigan State Medical Society's Presidents Program, and both of these were done in cooperation with the MSMS Executive Office. March was the Trauma number and we were ably assisted by Joseph L. Posch, M.D., of Detroit. The Cancer number in April was coordinated by C. Allen Payne, M.D., of Grand Rapids. David Gage, M.D., Lansing, secured the material for the Rehabilitation number in May, and June again was devoted to Michigan Medical Service with the Blue Shield headquarters staff assisting in obtaining the stories. The headquarters staff assisted in accumulating the many materials for the July Annual Session issue. In August, William Bromme, M.D., Detroit, collected papers presented by residents in approved training programs in urology over the past year and made suggestions to the staff artist for the applicable cover. Robert H. Trimby, M.D., Lansing, has been working diligently on the September Child Welfare issue. November will be Heart, again with the able assistance of John G. Bielawski, M.D., and December will feature the 1962 Clinic Days throughout the State.

As an indication of the popularity of this program, all of the issues of THE JOURNAL for 1963 and the earlier ones in 1964 already have been assigned by request.

(EDITOR'S NOTE: The work in editing and publishing THE JOURNAL, securing materials, analyzing and selecting the most appropriate articles, has been a pleasure and a joy. My relationships with the Publication Committee and The Council have been their own reward. I offer my thanks and deep appreciation for the counsel and help they have given during the years.)

Organization

1. The main channels of communication between The Council and the members of the House of Delegates are primarily through: (a) The Councilor Conferences, and (b) distribution of Council minutes to Delegates requesting them.

(See Recommendation No. 1 on Page 32.)

2. The Annual County Secretaries-Public Relations Seminar was held in East Lansing, February 3, 1962. The Seminar provided a balance of

leadership development material and important socio-economic subjects.

3. One of the highlights of the Seminar February 3 was the annual presentation of MSMS awards. The following awards were made:

A. "The Presidents Award" to Michigan doctors serving as presidents of national medical organizations:

Traian Leucutia, M.D., Detroit, President, American Roentgen Ray Society; Ross V. Taylor, M.D., Jackson, President, American Society of Internal Medicine.

B. Special Awards authorized by the 1961 House of Delegates to:

H. J. Meier, M.D., Coldwater; and K. H. Johnson, M.D., Lansing.

C. Distinguished Service Award was presented to:

G. T. McKean, M.D., Detroit.

D. "Outstanding Health Service Awards" were presented to:

Martin Fleming, Dearborn; Friend of Medicine and Chairman of the Michigan Crippled Children Commission from 1949 to date;

Granger Weil, Port Huron, for outstanding editorial support of Medicine in the Port Huron *Times-Herald;*

John W. Castellucci, Chicago, Executive Vice-President Blue Shield Medical Care Plans, for long service in behalf of voluntary prepaid medical service plans and the development of plans on a national basis for application of such programs to senior citizens.

4. The annual Residents-Interns-Senior Medical Students Conference was held March 1 during the Michigan Clinical Institute. Attendance was encouraging, higher than the previous year. The program featured topics of especial interest to the doctors of tomorrow.

5. Considerably more field service was provided by the MSMS Council members and staff than in any previous year. Although the bulk of such work was tied into discussion of the Kerr-Mills Act and proposed federal legislation, assistance was given also in many other areas.

6. For the first time, a short printed "Annual Report of the Michigan State Medical Society" was mailed to each MSMS member. (The Report accompanied the brief "Unofficial Proceedings of the 1961 House of Delegates.") Reports from members indicated that this new service was well received and highly appreciated.

7. The Council, as an experimental project, authorized that the 1962 Directory be printed in three sections: MSMS Members, Auxiliary to MSMS Members, and Michigan State Medical Assistants Society Members.

8. The Council adopted statements on several issues that were of serious import:

A. The Council requested "That the Michigan State Board of Registration in Medicine and the Michigan Board of Examiners in the basic Sciences change their administrative rules and give recognition to those doctors of medicine certified by the National Board of Medical Examiners for licensure to practice medicine in the State of Michigan."

B. The Council adopted a statement re the use of oral polio vaccine. (See Addendum A.)

C. The Council approved a statement re medical graduate needs in Michigan. (See Addendum B.)

9. The Council authorized MSMS representatives to meet with representatives of other interested groups concerning health care and health economics.

10. The Council and the Ingham County Medical Society provided a "Medical Aid Station" for the Constitutional Convention in Lansing. The Con Con delegates adopted a resolution voicing appreciation. The Council wishes to voice its sincere appreciation to the Ingham County Medical Society and its cooperating members for this valuable service.

11. Two special workshops brought together top MSMS officials and MSMS staff with the executive secretaries of those larger component societies which employ lay staff help. Matters of benefit to both MSMS and the component societies were on the programs.

Contacts with Governmental Agencies

1. After long and detailed study by members of The Council and the Medical Socio-Economics Committee, an official MSMS statement was presented February 3, 1962 to the Governor's Commission on Prepaid Hospital and Medical Care Plans. The Commission presented its report and recommendations to the Governor on July 9, 1962.

In the February 3 statement, MSMS stressed its position that "The United States has the best quality of medical care in the world; and in our opinion, the best system for distributing that care." Answers were provided to various questions raised by the Commission. Our statements included the following: (1) MSMS has taken the leadership to insure the highest possible medical care for the general public and that the doctor is the key person in the effective quality control methods in the hospitals; (2) proper utilization of medical facilities is a vital concern of the doctor, component societies, and MSMS; (3) that the government

agencies should reimburse all hospitals for the actual per diem costs as determined by quarterly Blue Cross audits; (4) MSMS, since the inception of Blue Shield, has supported the community rating principle for the benefits of the entire community; (5) that MSMS and the Michigan Health Council shall continue to work diligently for greater health manpower in Michigan; (6) MSMS believes that the Blue Shield Board should continue to have public representation—and that the board could not be improved by a change in composition; (7) MSMS has encouraged M.D. participation in Blue Shield but does not believe that coercion should be used to obtain participation; (8) MSMS does not agree with the suggestion that a permanent commission be established to watch progress on the Study recommendations.

2. Health Care of the Aged. This was the major federal issue facing Medicine this past year. Because Michigan was the first state to implement the Kerr-Mills Act, the Michigan State Medical Society took the offensive to describe the effectiveness of Kerr-Mills legislation, called Michigan Medical Aid to the Aged (MAA). (President Engelke testified before the House Ways and Means Committee in Washington.)

MSMS Councilors, aided by MSMS staff members, arranged numerous conferences with their area medical leaders and Congressman during the Congressional recess at Christmas.

Throughout the year, extensive work was carried out by the MSMS Councilors and staff with component societies. Speakers were scheduled, public meetings were arranged, publications were developed, advertisements were written and run in newspapers, radio and television presentations were made, and many other activities pushed.

Additional manpower was sent into Michigan by the AMA to intensify the effort. Excellent cooperation was received from the Woman's Auxiliary and the Medical Assistants. Many other groups assisted—such as the Michigan Farm Bureau, National Association of Manufacturers, Chambers of Commerce, Michigan Association of the Professions and its other affiliated members, the insurance industry, service clubs, and others.

3. The Council voted as being "opposed to the reporting by laboratories directly to the State Health Department of so-called positive or suspicious findings of venereal disease." Despite this, the Council of Health (advisory to the Michigan Health Commissioner) recently published a ruling that laboratories shall make these reports directly to the State Health Department.

4. The Michigan State Medical Society continues to have beneficial contacts with other governmental agencies including: (a) The Michigan Legislature, (b) Michigan Constitutional Convention, (c) Michigan Department of Health, (d) Michigan Department of Public Instruction and its Office of Vocational Rehabilitation, (e) Michigan State Board of Registration in Medicine, (f) Michigan Crippled Children Commission, (g) University of Michigan Medical School, and (h) Wayne State University College of Medicine. The Deans of the two medical schools in Michigan are invited to every Council meeting.

Contacts with Voluntary Agencies

1. Reports on the progress of Michigan Medical Service were made at most Council meetings by MMS President, Sidney Adler, M.D., Detroit, assisted by various MMS executives. The meeting dates of MMS Board of Directors were rescheduled to permit better liaison and closer cooperation between MSMS and Blue Shield.

2. Special efforts continue to be taken to tell MSMS members about the important work of the American Medical Education and Research Foundation. A solicitation mailing to every MSMS member helped to increase 1962 contributions over those of the previous year.

3. The Council adopted a set of principles governing hospitals, lawyers, and doctors, with respect to hospital records and contacts between lawyers and patients.

4. The Council recommended that each component society join the Chamber of Commerce of the United States and that the MSMS membership be continued in the U. S. Chamber.

5. The Council urged that component societies provide financial support to the two SAMA Chapters in Michigan.

6. A liaison committee with the Michigan Association of Osteopathic Physicians and Surgeons, Inc., was appointed by The Council.

7. Contacts of mutual benefit have been continued with the Michigan Heart Association, Michigan State Dental Association, Michigan State Nurses Association, Michigan State Pharmaceutical Association, Michigan Hospital Service, Michigan Medical Service, Michigan Adult Education Association, Michigan Chapter of the Health Insurance Council, Michigan Congress of Parents and Teachers, Michigan Health Officers Association, with the other six Michigan organizations interested in cancer control working through the Michigan Cancer Coordinating Committee, Michigan Livestock Health Council (interested in animal diseases communicable to man), Michigan Association of the Professions, the Michigan Health Council, Michigan League for Nursing, Michigan Practical Nurses Association, and others.

Committees

A total of 98 meetings of Committees of the House of Delegates, the Michigan State Medical Society, and of The Council, were held during the past year. In addition, 12 meetings were held of liaison committees to which MSMS sends official representatives.

The work of the various MSMS Committees continues to serve as the foundation for effective service to our members and to the public.

The conscientious, dedicated efforts of the many committee members are, therefore, essential as MSMS meets its challenges. High praise must be accorded each committee chairman and committee member for self-sacrificing service.

The annual reports of the committees of The Council follow:

I. *Committee on Disaster Medical Care.* The Committee under the new Chairman, Charles P. Anderson, M.D., currently Acting Commissioner for the Detroit Department of Health, endorsed the Medical Self Help Training Program.

This program has become a major project as steps were taken to implement the program in Michigan by furnishing representatives to the State of Michigan Self Help Advisory Committee and following up activities at county levels.

In the past year, the Committee reviewed the House of Delegates Resolution No. 34, concerning the confirmation of the Medical Director and the Deputy Director of Region 4 Executive Committee and its organizational activities. The Executive Committee has undertaken, as a pilot project, the development of a means of extending county cooperation regarding evacuation routes, supplies, shelter and the Civil Defense Emergency Hospital, with the assistance of the Committee.

The Committee also proceeded with its original plan of developing, with the cooperation of the University of Michigan, a local training manual for the proper assembly and use of the Civil Defense Emergency Hospital.

As a replacement for the Annual Physician-Hospital Workshop, the Committee co-sponsored with Michigan Hospital Association, State Health Department, U.S.P.H.S., and M.O.C.D., "Health Service Emergencies" conference held in Lansing on April 25-26.

II. *Liaison Committee with State Executive Office.* No matters were brought to the attention of this Committee during the past year, so it was unnecessary to call the Committee into session.

III. *Ad Hoc Committee to Survey Utilization of Health Insurance.* No meetings were held by the Committee during the past year, although contacts were maintained with individuals from Michigan Medical Service who were studying similar problems.

This Committee has completed all necessary groundwork and now is ready to formulate the practical aspects of implementation. Before this is done, however, the Committee believes that it will be helpful to see what recommendations are made by the Governor's Commission on Prepaid Hospital and Medical Care Plans. If this report is made available in July, the Committee may be able to develop its implementation plan in late summer.

IV. *Centennial Committee.* No matters were brought to the attention of this Committee during the past year, so it was unnecessary to call the Committee into session.

V. *MSMS Representatives to Michigan Joint Council to Improve the Health Care of the Aged.* The Michigan Joint Council to Improve the Health Care of the Aged held one meeting on February 15, 1962, at the Cedar Knoll Rest Home, Grass Lake, Michigan. The Committee discussed a possible pilot project in the Jackson and Ingham County areas, for a study with representatives of the nursing homes, hospital administrators, dental and medical societies, concerning patient care in nursing homes and transfer between general hospitals and nursing homes. Since a similar project had been started in Ingham County, there will be some delay in the joint project with the two county area.

The Michigan Nursing Home Association representatives made a brief report concerning nursing home accreditation program and the committee discussed briefly the operations of the Medical Aid to the Aged (Kerr-Mills) program in Michigan, which includes nursing home care following direct care in a general hospital.

The committee also began a program of establishment of area joint councils to improve health care of the aged, especially in the Muskegon and Saginaw areas, and will hope to continue and expand this program during the coming year.

VI. *Committee on Medical Care Insurance.* The MCIC was given two assignments by The Council at the beginning of this year. First: Make a study of the participating physicians with Michigan Medical Service. Second: Make a study of the number of lay members on the Board of Michigan Medical Service.

A report on these two subjects will be made directly to The Council at a later date.

VII. *Michigan Chairman, AMA Education and Research Foundation.* The year of 1961 was the most productive year to date for AMAERF in Michigan. There was a total of $31,000 contributed by doctors and doctors' wives in this state. The AMAERF headquarters in Chicago was active in sending out a number of letters and enclosed envelopes. Our state sent a special letter

over the signature of your Chairman late in November which was productive of contributions. These added to the great efforts of the AMAERF Committee of the Woman's Auxiliary, of which Mrs. Rufus Reitzel of Mt. Clemens is chairman, accounted for this successful year.

This year finds AMEF merged with the American Medical Research Foundation, with the new organization known as AMAERF. Contributions to date are running at a slightly higher level than last year but not sufficient to accomplish the purpose of the merger. It is hoped that an aggressive campaign will be put on again this year by the headquarters in Chicago and by our state so that we can make an even better report next year.

VIII. *Advisory Committee on Medical Procurement.* The Committee had no meetings during the year, no problems arose which required its attention and no matters requiring its action were assigned to it.

One member of the Committee is Medical Advisor to the State Director of Selective Service.

IX. *Committee on Recruitment of Superior Medical Students and Need for Financial Aid.* The following is the annual report to The Council on the Committee on Recruitment of Superior Medical Students and their financial needs. This Committee has met twice during the following year and this is the third year of its existence. We submit the following report:

WHEREAS: The Michigan Foundation for Medical and Health Education, Incorporated, has indicated it is the source of numerous scholarships for the State of Michigan when in fact it has very limited funds and prefers not to publicize its purpose, and,

WHEREAS: High school and college recruitment disclosed competition along with science advisors and other scientific professions and,

WHEREAS: The quantity and the quality of students to medical schools is diminishing due to

(A) The political climate,
(B) The increasing cost of schooling,
(C) The lack of scholarship and loan funds,
(D) The discouragement of part-time students, and
(E) The time necessary to traverse the medical course and,

WHEREAS: The need for additional doctors is a result of

(A) A recent population explosion,
(B) An increase in the number of old people,
(C) The arrival of dramatic new therapies, some requiring entire teams of physicians, and
(D) An increase in babies and young people,
(E) The economic status of the country as a whole has increased, and,
(F) The Government is absorbing more doctors into governmental and military service, removing them from the private practice of medicine, and
(G) There is an increased need and desire for physicians' services as a result of general educational achievement and understanding by the consumer public, and,

WHEREAS: A recent survey by this committee of the county societies of Michigan discloses that only eight of fifty have any program to support recruitment and financial aid.

THEREFORE: *Be it resolved that we request The Council of the Michigan State Medical Society to seriously consider the following:*

(1) *Provide wholehearted support for the new AMAERF Scholarship Program. If we do not do this, we shall expect that our failure to act will encourage the Federal Government to pass a Federal Medical Scholarship Program.*

(2) *The Council of MSMS request the Board of Trustees of the Michigan Foundation for Medical and Health Education, Inc., to re-study their loan-scholarship provision, for the purpose of liberalizing and publicizing the provisions in the area of*

(A) Geographic restrictions of applicants,
(B) Repayment of loans,
(C) Rate of interest, and
(D) Ultimate location of practice.

(3) *That The Council publish the list of eight counties in the survey which have a positive loan and recruitment medical school program and release this list to all component medical societies.*

(4) *The Committee has studied and reviewed with the Deans' representatives the forms for loans and scholarships and makes the following recommendations:*

(A) Funds be available for all years of medical school,
(B) Restrictions not be imposed upon the student's freedom to obtain postgraduate training or pursue a career of his choice,
(C) That the funds be administered by the Dean's Office or the Alumni Association with appropriate credit to be given to each contributor,
(D) That the funds be available to any medical school in Michigan,
(E) That the primary determinant for scholarship shall be academic performance as well as need.

It was the sincere feeling of every man of this Committee that this may be about our last opportunity to counter the efforts of government to subsidize the education of medical students. It appears to us that we should wholeheartedly and rapidly support the AMAERF Fund and if necessary we recommend a one time assessment of $10.00 per member. IF WE DO NOT DEMONSTRATE OUR WILLINGNESS TO SOLVE THIS PROBLEM, WE SHOULD NOT OBJECT TO THE EFFORTS OF THE FEDERAL GOVERNMENT TO DO SO.

The Chairman wishes to thank the members of the committee as well as the representatives of the Deans of the two medical schools and Mr. J. A. Doherty of the Michigan Health Council for their helpful advice and assistance.

X. *Education Liaison Committee.* While the Education Liaison Committee held no formal meetings during the past Society year, much liaison or contact work was done by individual members of the Committee. Reports of these activities routinely were presented to The Council.

During the past year no requests were received from either of the two medical schools in this State for specific policy decisions that would require a meeting of our Committee. Close cooperation between MSMS and these institutions was maintained, therefore, on a personal basis through the Chairman and the individual members of the Education Liaison Committee. Also, the presence of the two medical school Deans, or their representatives, at meetings of the MSMS Council was conducive to good understanding and harmonious, progressive relationship.

XI. *Special Committee on Alcoholism and Drug Addiction.* The Committee on Alcoholism and Drug Addiction has met on three occasions in 1962 and goals of our Committee have resulted in requests for an issue of the MSMS Journal to be devoted to articles on alcoholism, talks on alcoholism to be presented at some future MSMS Convention and a survey of the activities of County Medical Societies.

A joint meeting with the Genesee County Medical Society Committee on Alcoholism was held and other counties are to be visited in the future.

XII. *Committee on Courses on Medical Economics and Ethics.* We are somewhat early in preparing the Annual Report on Courses on Medical Economics and Ethics. The season is completed and we feel that it has been a successful year.

The senior medical students, University of Michigan, have responded in goodly numbers, with virile attention and inquiring attitudes, considering the fact that extern assignments and teaching programs have removed many of them to other hospitals in the State of Michigan.

G. O. Clifford, M.D., a member of our Committee and of the Faculty of Wayne State University College of Medicine, is making urgent plans for a re-institution of Courses on Medical Economics and Ethics in his curriculum.

SCHEDULE OF LECTURES BEFORE THE U OF M SENIOR MEDICAL CLASS

1.		Class officers have arranged during the year for their own lectures in "Estate Planning and Insurance Programs." C. Howard Ross, M.D.
2.	7/12/61	"Development of a Fee Schedule,"
3.	7/19/61	"History of Ethics," C. Howard Ross, M.D.
4.	7/26/61	"Hospital and Medical Economics," Prof. W. J. McNerney.
5.	8/ 9/61	"The Morality of Surgery," Thurston Thieme, M.D.
6.	8/16/61	"An Interpretation of Ethics," Darrell A. Campbell, M.D.
7.	8/23/61	"Ethical Involvement in Continuing Medical Education," Wm. N. Hubbard, Jr., M.D., Dean, U of M Medical School.
8.	9/13/61	"Duo Versus Singleton Practice," Robert Kanauer.
9.	9/20/61	"The Doctor's Accounting System," C. Howard Ross, M.D.
10.	10/ 4/61	Class Day—"Matching Programs Regarding Internship," Wm. N. Hubbard, Jr., M.D., Dean, U of M Medical School.
11.	10/11/61	"An Ethical Approach to Geriatrics," C. Howard Ross, M.D.
12.	10/18/61	"The Doctor in Court," Judge James R. Breakey, Jr.
13.	11/ 8/61	"Class Day," conducted by Harry Towsley, M.D.
14.	11/22/61	"Class Day on Internship," conducted by Earl F. Wolfman, M.D., and Harry Towsley, M.D.
15.	11/29/61	"The Surgeon and His Fee," Charles G. Child, M.D., Chairman, Department of Surgery, University of Michigan.
16.	12/13/61	"Orientation with the Specialties," GP Panel. (a) "Introduction," Moderator: C. Howard Ross, M.D. (b) "General Practice in the Specialties," Howard Robinson, M.D. (c) "General Practice in a Metropolitan Area," Lyle Korum, M.D. (d) "Consultation Techniques," A. C. Stander, M.D. (e) "Art of the Practice," F. P. Rhoades, M.D. (f) "The Family Physician's Place in the Community," Russell Fenton, M.D. (g) "General Practice—the Keystone," Howard Rees, M.D. (h) "Medical Organization," E. Clarkson Long, M.D.
17.	1/10/62	"The Doctor Walks Among Many Religions," W. G. Fox, M.D.
18.	1/24/62	Panel—"Medical Communications and Public Relations" (a) "Public Relations," R. Wallace Teed, M.D. (b) "Medical Communications," Mr. Hugh Brenneman.
19.	1/31/62	"A Doctor's Philosophy," C. Howard Ross, M.D.
20.	2/14/62	Panel on Orientation, Washtenaw County Medical Society. (a) Moderator, Joseph Fisher, M.D. (b) "Introduction," Edmund S. Botch, M.D. (c) "Organization of a Medical Society," Gerhard H. Bauer, M.D. (d) "Public Relations," R. Wallace Teed, M.D. (e) "Early Practice and Legal Requirements," Entire Panel.
21.	2/20/62	"Ten Easy Lessons on How to Land in Court," Lester P. Dodd, Attorney, Legal Counsel, MSMS.

22.	3/ 7/62	Panel—"Medical Placement in Michigan," Brooker Masters, M.D., John B. Kantner, and John A. Doherty.
23.	4/18/62	"Medical Manpower," A. C. Furstenberg, M.D., Dean Emeritus, University of Michigan Medical School.

It is interesting to note that many "bull sessions" occurred in fraternities following our individual lectures, and absent students were brought up to date in gross numbers.

We are certainly grateful for the contributions of our Committee members, visiting Executives, Lay and Professional speakers, members of the Faculty and the Senior Medical Class.

In planning the annual meeting of our committee, we shall again have a Class Breakfast for the Senior Medical Students and their wives, plus certain High School selectees, on the second Sunday in August (August 12), at the home of the chairman. Members of the committee and their wives are urged to attend. After the breakfast, we shall follow with a reception and dinner at Barton Hills Country club for the executive session, including class officers.

XIII. *Committee to Study Problems of Emergency Care in Hospitals.* The Committee to Study Emergency Care in Hospitals worked by mail and with the assistance of a sub-committee prepared a questionnaire for chiefs of staff of 260 Michigan hospitals.

The cooperation of the Michigan Hospital Association was enlisted in addressing the envelopes for mailing.

To date, 165 questionnaires have been returned and the replies are being tabulated in the Lansing office.

It is planned that a complete report will be prepared before the Annual Meeting.

XIV. *Ad Hoc Committee on Study of Podiatry.* This Committee has had several meetings and has come to an impasse regarding what the podiatrists desire and what they could or should have.

I recommend the Committee be continued for possible future reference.

XV. *Committee on Rehabilitation.* The Committee on Rehabilitation, during the 1961-62 committee year, devoted its entire efforts toward the development of new goals and purposes of this new, enlarged committee.

It will be recalled that prior to this year the Committee had been titled the Vocational Rehabilitation Committee and was primarily concerned with coordinating MSMS activities with the State Department of Vocational Rehabilitation.

Upon recommendation of the Committee, approved by the House of Delegates, the name of the Committee was changed to Committee on Rehabilitation, its membership was increased and members were appointed according to geographic representation. The Committee believes that this was a wise step and the Committee is more adequately prepared now to advise the Society in problems concerned with overall rehabilitation rather than being limited to vocational rehabilitation.

Rehabilitation, for the purpose of this Committee's responsibilities, is defined as primarily those medical modalities that may be meaningfully utilized to restore acute and chronically disabled to a realistic level of community living.

The Committee believes that liaison should be established between existing component society rehabilitation committees and the state committee. This contact was initiated May, 1962.

For the remainder of the committee year, the Committee will outline more specific plans for accomplishing its main purpose. The Committee believes that before it can make valid recommendations regarding possible improvements in rehabilitation activities, it must first acquaint itself with existing programs within the state. Therefore the Committee recognizes that its current efforts cannot produce tangible results before 1963. It is evident that a great deal of study and evaluation will be required of each member of the Committee before the Committee's goals can be realized.

The Chairman wishes to commend each member of the Committee for his keen interest and concern in problems of rehabilitation.

XVI. *Liaison Committee to Michigan State Nurses Association.* This newly formed committee has had two meetings. The first meeting was more fact finding in nature and organizational in character.

Lack of facilities to teach the basic sciences to nursing students in the Detroit metropolitan area was thoroughly discussed. The question arose also if this committee should be an independent committee or a sub-committee of the Permanent Conference Committee.

XVII. *MSMS Representatives to Liaison Committee with Michigan Society of Neurology and Psychiatry and Michigan Psychological Society.* No matters were brought to the attention of this Committee during the past year, so it was unnecessary to call the Committee into session.

XVIII. *MSMS Representatives to Michigan Cancer Coordinating Committee.* The Michigan Cancer Coordinating Committee held two meetings during the past year, plus a meeting of its Sub Committee on Cancer Quackery. Each of the seven-member agencies was represented at meetings of MCCC.

The Committee emphasized professional education by: (a) cooperating in production of the April JMSMS Number dedicated to cancer con-

trol with C. Allen Payne, M.D., of Grand Rapids as coordinator; (b) sponsoring the Michigan Cancer Coordinating Committee Lecture at the March, Michigan Clinical Institute (Lecturer was Owen H. Wangensteen, M.D., of Minneapolis); (c) helping to sponsor oral cancer symposium in Detroit, March 22 and arranging two additional cancer symposia, the first in May, and the second in June.

Pamphlet distribution was expanded during the past year. Total distribution for the following cancer publications is indicated below:

"Story of Cancer for High Schools (the Manual)"	18,420
"Uniting Against Cancer"	14,870
"Strength Through Unity Against Cancer"	18,490
"Four Horsemen of Cancer"	3,100
"Hopeful Side of Cancer"	4,980

Included were letters (with "Strength Through Unity Against Cancer") sent to all members of the Michigan State Medical Society and to the Michigan State Dental Association as well as to all other state medical society secretaries and executive secretaries in the United States and to all Divisions of the American Cancer Society.

Being studied is the distribution (by volunteers of American Cancer Society Units in Michigan) of a "holder" for cancer pamphlets, for neater display and better distribution in the reception rooms of professional men and women.

During the year MCCC experimented in distributing brochures to a selected county medical society (Ionia-Montcalm) which met with such favorable reaction that the continuation of the experiment was recommended to all participating member agencies of MCCC.

The Sub-Committee on Cancer Quackery conducted an informal survey on the extent of the problem of cancer quackery in Michigan; developed a new cancer quackery exhibit; and re-introduced, into the 1962 Legislature, the Cancer Quackery Bill which, after cultivating an awareness of the need for eventual action in this area, was allowed to die in Committee pending another year of study.

The Michigan Cancer Coordinating Committee noted with satisfaction the spread of cancer coordinating committees throughout the country. The most important product of any state coordinating committee is the development of personal contacts between organizations with similar interests, which in turn helps dissolve organizational barriers which might hamper the effective achievement of objectives of mutual ambitions for cancer control.

Future expansion of MCCC activities are being discussed for (a) public education; (b) professional education; (c) service and public protection; and (d) research, as follows:

1. Determine assignment areas best suited to each member-agency;
2. Determine performance of each member-agency in each area;
3. Recommend areas where greater activity could be developed;
4. Maintain continuous record on performance of member-agencies.

XIX. *MSMS Representatives to Permanent Conference Committee with Michigan League for Nursing and Michigan State Nurses Association.* The meetings have been well attended by the representatives of all component organizations. The sincerity and interest of our members was well demonstrated at the last meeting when considerable time was taken to indoctrinate several new members from other groups as to the purpose and functioning of this Committee.

Lack of facilities for education of student nurses was discussed. Reports were also given following the meeting of a sub-committee with the State Board of Nursing about Utilization of Practical Nurses.

XX. *Liaison Committee with State Bar of Michigan.* The only action of this Committee not concluded pertains to a "Statement of Principles" prepared by a committee of the State Bar pertaining to agreements between hospitals, physicians, and lawyers.

This statement contains much of what was included in the original statement agreed upon by both organizations in 1957, but brings in the hospitals, through the Michigan Hospital Association, to a greater degree. It was accepted by the Joint Committee and then was to be presented to the three organizations for ratification.

The Michigan Hospital Association has not yet sent a report on their action, except that the matter was referred back to their three-man committee for recommendation to their Executive Committee. We shall await their reply.

Legal Matters

Your Legal Counsel, Lester P. Dodd, attended all meetings of the House of Delegates and practically all meetings of The Council. He attended and participated in the County Secretaries—Public Relations Seminar, the MSMS Annual Session, the Michigan Clinical Institute, and the Executive Secretaries Workshops.

Legal Counsel participated actively in the work of the Legal Affairs Committee, the House of Delegates Committee on Constitution and Bylaws, and the House of Delegates Committee to Study Association Between MSMS and Michigan Medical Service. He attended and participated in certain phases of the work of many other committees.

Mr. Dodd aided in the preparation of material

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and attended hearings before the Governor's Commission on Prepaid Hospital and Medical Care Plans.

During the year, Mr. Dodd has rendered 44 formal and a number of informal legal opinions on a wide range of subjects.

Mr. Dodd drafted the Professional Incorporation Act which was passed by the Legislature this year and participated with MAP and MSMS representatives in efforts to secure its passage. He has also replied to many inquiries and addressed many joint meetings of doctors and members of other professions on this subject.

Mr. Dodd has participated actively in the campaign to defeat King-Anderson, making talks on this subject to various non medical groups.

Finally, Mr. Dodd has counseled with officers and members of the staff on innumerable details of the Society's operations.

Annual Report on MSMS Headquarters

The MSMS headquarters meets every requirement for improved services to members and committees and in facilitating the work of the MSMS organization and staff.

All committees of MSMS have been urged to meet in the building whenever feasible. This results in better staff service to committees, and the central location reduces members' travel time.

In addition to its prime purpose of membership service, the new headquarters of the Michigan State Medical Society is serving as focal point for health and medical activities in the state. This was one of the considerations in its design, to increase liaison between MSMS and organizations and agencies concerned with health matters.

During its first year of operation, the headquarters has been used by more than twenty committees or boards of other health-oriented organizations.

The Council feels that the public service interest of MSMS is enhanced by this use of our new facility.

During the shakedown period after occupancy, minor adjustments were necessary to bring the building up to its full efficiency.

The exterior beauty of the building has been enhanced by the addition of evergreen shrubs across the front terrace. This is the only alteration in the original building and landscape design.

The MSMS building has helped the Society dramatize its dedication to the public interest, and during the coming years it is expected that Medicine's efforts to serve as a coordinator of health activities will meet with increasing success, with the headquarters serving as the hub of these activities.

MSMS Group Insurance Programs

Up-to-date complete reports on the two MSMS group insurance programs will be included in the Supplemental Annual Report of The Council.

Medicare

Despite the Kennedy Administration's misuse of the word, Medicare is a national program of some years' standing whereby the dependents of servicemen may, under broad options, receive medical and hospital care from private physicians in the community where they reside. This is the healthy alternative to the gigantic expansion of medical facilities by the armed forces and the inevitable syphoning off into uniform of many thousands of young physicians. The program has had general support by the medical profession despite the paper work involved. There are areas wherein the fee schedule seems inadequate. The validation of dependency in the form of identification cards could be improved on a national basis.

Veterans Administration Hometown Medical Care Program for Service-Connected Disability

Michigan is one of the last states to have had its use of a pre-payment plan (Michigan Medical Service) for the hometown care of service-connected veteran disabilities cancelled by the Veterans' Administration. This occurred on June 30, 1962, but there should be no interference with the operation of the program since The Council, MSMS, has authorized an ad hoc committee to serve our members. Over the past several years, the activities of the intermediary (MMS) had been reduced solely to that of a disbursing agent. The problem of renegotiating fee schedule has been assigned by The Council, MSMS, to the ad hoc committee.

MSMS Centennial

Preliminary plans are moving ahead for the celebration of the 100th Anniversary of the Michigan State Medical Society in Detroit in September, 1965.

A special Centennial Committee, comprised of Past Presidents, has been appointed.

William J. Stapleton, Jr., M.D., Detroit, MSMS Historian, is appealing to members and friends for historical materials. He also is directing a survey of the MSMS Journals for the past 31 years—the study being undertaken by the Burton Historical Library.

Woman's Auxiliary

(As submitted by Mrs. Clarence I. Owen, Detroit, President)

It is a pleasure for me to submit the following report of the activities of the Woman's Auxiliary

to The Council of the Michigan State Medical Society:

Today we have a membership of 3,239 or about one half of our potential. We have all sizes of Auxiliaries, the smallest with eight members, the largest has over seven hundred members, many of whom are inactive because there are too many organizations that are competitive.

In our State we enjoy a diversified program geared to the needs of the community but special emphasis had been placed on AMEF, Legislation, and Health Careers.

Our AMEF Chairman was a very alert and energetic person, always ready at the drop of a hat, to go to the farthest corner of the state to explain AMEF and what it means to our Medical Schools. Nearly all of our counties have increased their donations this year. So far this year we have exceeded our last years giving by $1,750.76. More people are playing bridge now than ever before —WHY—because they are using AMEF playing cards.

Health Careers have been, and still are one of our major activities. This year $1,925 have been given in loans and $8,385 in scholarships or a total of $10,310 towards the education of our young people in the various health fields.

All of our efforts are not spent on money making projects. We are fortunate to have as our Legislative Chairman a member of the Michigan Bar Association. We know as good citizens we have a definite job to do. We must be well informed on the political issues that are undermining our economy, and those individuals who are trying to socialize medicine bit by bit.

Our Chairman has toured the state extensively explaining the political issues and stressing the fact that "good medicine" cannot survive the assembly line technique. This is a wonderful field of joint endeavor for the Doctor and his Wife. It is up to them to decide which team will win—the politicians or the doctors, and that means lots of work for every one.

Our newest project is "International Hospitality." East is east and west is west and the twain *does* meet in our Michigan homes. To date, 122 doctors and their wives representing 36 different countries have partaken of some form of hospitality in our homes. Some have enjoyed an evening at the opera, others a ball game, or a tour of the Art Museum, or enjoyed some of our picturesque scenery in Michigan. The doctors involved are here for further training at various hospitals and institutions. As they go back to their native lands we hope they will carry many happy memories of their time spent in Michigan, and that we really believe in "Peace on earth and Good Will toward all Men."

I would like to take this opportunity to give "Special Thanks" to Mr. Burns and his entire Staff at our Lansing Headquarters for the indispensable assistance and support I have received this year, also to Mr. Ray Scott and his Staff at the Regional Office in Detroit. Again my Sincere Thanks.

Public Relations

For the past 97 years, the MSMS has effectively moved toward its objective of promoting the science and art of medicine and the betterment of health.

It has given leadership to component county and district medical societies as well as to other state medical associations in developing continuing education programs and publications, advancing ways and means for better distribution of medcial services, protecting the rights and privileges of professional practice, and advancing the public health through close relationships with scores of organizations actively at work in the health field. This work has added immeasurably to the welfare of the people of Michigan and of our nation.

Every MSMS member should be thoroughly acquainted with these programs for it is through their implementation by way of the individual physician or through his support that good relations of the profession of medicine is maintained and improved.

The interest of the individual doctor is particularly important at this time because the entire profession of medicine is engaged in a number of legislative conflicts which have become increasingly demanding and of greater importance than ever before, for in nearly every instance the freedom of doctors to practice medicine according to the dictates of their professional conscience is challenged.

During the past year, the Public Relations Committee, in concert with many other committees and programs of the State Medical Society, has sought to build public support for our profession's philosophies through a continuous flow of information. It has sought to build professional support by keeping its members acquainted with the Society's total activities. It has worked constantly to improve the physician-patient relationships and in so doing has both sought the help of and assisted local medical societies in developing effective public relations programs.

A close working relationship with the American Medical Association has developed with each passing year to the advantage of MSMS members.

Michigan has made good use of the AMA publication *Today's Health*. The distribution of the AMA NEWS has provided a valuable medium whereby our members are kept up to date on nonscientific and socio-economic activities. Articles prepared and appearing in the MSMS Journal, Legislative Reports, the President's Letter, plus special all-member letters from time to time have

dove-tailed with the AMA publications to keep the doctors better informed in 1961-62 than ever before. The headquarters' public relations library and the services with it from state and national authoritative sources, such as the Congressional Report and the Gongwer News Service, has proved a valuable source of information to individual members throughout the year.

On an organized basis this library has also distributed thousands of pamphlets, brochures, films, speeches, radio programs and television programs which have had their affect by reaching, literally speaking, millions of people.

For the past several years, this year included, MSMS has directly supplied or directly assisted in the supply of exhibits to both members' groups and to the general public. Among these are the State Fair, the Freedom Festival, the Career Carnivals, annual meetings of the Society, et cetera.

A continuing service has been the publicity attendant upon the holding of the MSMS Annual Session and the Michigan Clinical Institute, as well as the development of materials looking toward the promotion of physician interest and attendance. In company with these is the assistance given in the arranging of special events such as the honoring of those persons selected for awards, visitations to MSMS headquarters, meetings with related groups, et cetera.

Of prime importance is the development of liaison with other groups. This activity has reached its highest peak in Michigan in comparison with other states although much still remains to be done. Through the Michigan Health Council the MSMS has maintained contact with 101 state organizations having a major interest in health, as well as some 83 community health councils. By way of the increasingly successful effort of the Michigan Association of the Professions, MSMS has developed and improved rapport with six other major professions. Through these good "right arms" of medicine, meetings such as the Michigan Health Conference and the Congress of the Professions have been held, over 100 television broadcasts have been made, conferences with school guidance counsellors and potential-professional students have been held. Legislation has been passed, doctors have been placed in communities which need them, and access to business advices and services for individual MSMS members has been improved.

An important but oft-times "silent" service has been the help given to MSMS officers. Assistance in the development of materials subsequently to appear in speeches, appearances on radio and television, the preparation and distribution of official statements, et cetera, are extremely valuable but demands much time and effort in their preparation.

Although MSMS has not formalized its Speakers' Bureau by way of separate committee delegation, it has supplied hundreds of speakers for many occasions through active solicitation of opportunities to speak, the holding of a speakers' training school, the preparation of model speeches, and the arrangements for speakers to appear.

Relationships with communication media representatives, e.g.: science writers, television and radio program directors, magazine writers, et cetera, has been kept on a most cordial basis through constant attention to the needs of these important people and the supply of facts upon which they can depend. News releases have been issued on a wide range of subjects and the use of "trumped up" news has been assiduously avoided. Radio stations are still using the "Tell Me, Doctor" series on a regular daily basis.

During the past year MSMS has added to its staff Mr. Ralph T. Wills to assist in legislative contact. At the same time it has stepped up its field service to component societies and personal contact through its field representatives with individual members.

It is perhaps unnecessary to review, but for the record it should be noted, that an extensive "six weeks campaign" which by design and because of circumstances lasted for over twelve weeks was successfully carried out in conjunction with the national effort to halt the passage of the King-Anderson Bill. Materials prepared and distributed in this effort included over 30 pamphlets and reprints with distribution totaling one half million. Advertisements were prepared and distributed, television broadcasts were arranged and in some instances contracted for, kits were made available for speakers, debaters, editorial writers, women's clubs, industrial and civic groups, et cetera. Resolutions were passed in increasing number as each county medical society was personally contacted by MSMS representatives. The MSMS was singled out for recognition at the AMA Annual Session for its effectiveness in pouring thousands of letters into Washington, as well as for the impact of its delegation's annual visit to that city.

MSMS does not make a point of advertising to the general public or even to its members the fact that it has a continual, ably functioning public relations program. It is true in public relations as in medicine that actions speak louder than words. The fact that MSMS is looked upon in the Legislature, in the Congress, and by the press as a powerful and significant organization is proof enough.

However, it should be emphasized that MSMS is directing a concerted effort both now and in the future towards the very fundamental need to demonstrate the *concern of the individual doctor, the individual component society and the Michigan State Medical Society for the welfare of the people.* It is earnestly recommended that all MSMS activities and reports of activities emphasize this important concept in the coming year.

Medical Socio-Economics

The 1961 House of Delegates directed the immediate establishment of a Medical Socio-Economic Committee, employment of an economist, and set forth the duties of this new Committee and first-year budget.

Immediately following the House action, the following steps were taken to implement the House of Delegates' instructions:

1. An MSMS Medical Socio-Economic Committee was appointed, consisting of a Chairman, H. F. Falls, M.D., of Ann Arbor, and six members serving for specific terms.

2. In December, Mr. Richard M. Campau, an economist on the faculty of the University of Detroit, was employed as the full-time Research Director of the MSMS Medical Socio-Economic Department. Also Professor C. T. Hardwick, Director of the Institute for Business Services, University of Detroit, was retained to serve as Economic Consultant. He is available to consult and advise the Committee and The Council on broad aspects of economic policy.

3. The Finance Committee of The Council adopted a budget for the 1962 fiscal year from funds obtained from a $5.00 increase in membership dues.

4. The office of the Research Director was established in the MSMS Regional Office in the new David Whitney House in Detroit. This location places the Research Director near research facilities and sources as recommended by the 1961 Medical Care Study Committee.

Legislation

The 1962 legislative effort of the Legal Affairs Committee and staff, involved the reviewing of over 1,200 legislative proposals and focusing attention on more than 50 bills, directly bearing on medical matters. Some major legislation favored by the medical profession was enacted into law by a wise Legislature which, during the 1962 session, passed no bill inimical to the best health interests of the people.

During the six-month session, "Legislative Reports" were forwarded to an expanding and revised mailing list of more than 1,000 Michigan physicians. These Reports, issued bi-weekly, touched upon the highlights of state legislation, the Constitutional Convention, and the federal Congress. On many occasions physicians were called upon to express their views to their legislators; their splendid response in all instances was most instrumental in obtaining legislative support for good bills—and opposition to bad ones.

A highlight of the 1962 session was passage of a new law to permit one or more professional persons to incorporate and thus obtain certain tax advantages (funded retirement plans, group insurance programs). Laws were amended to reflect modern understanding of epilepsy, decided progress was made toward future enactment of a number of desirable new statutes—including "good samaritan" legislation, improved chemical test laws (for drinking drivers), increased use of auto seat belts, participation in the Interstate Mental Health Compact, et cetera.

A proposed law, to create a new and powerful council to license and regulate all hospitals, received months of detailed consideration by both Houses of the Legislature and was eventually set aside for consideration during 1963; MSMS pointed out that further study of the proposal is desirable.

The Legislature considered a bill requiring phenylketonuria tests for all newborn babies and killed the proposal when it was deemed premature by MSMS; resolutions favoring the King-Anderson bill died in Legislative committee; and a bill which would have denied prepayment and private insurance companies any administrative latitude while forcing them to pay podiatrists was successfully opposed in the State Senate and did not pass.

Other health proposals considered by the Michigan Legislature involved a wide variety of subjects including ambulance licensing, poisons and dangerous drugs, physical therapist licensing, community mental health, industrial health, and air pollution.

An MSMS-endorsed resolution has established a special Senate study committee to investigate the implementation of the Kerr-Mills (MAA) program in Wayne County to ascertain if this program is functioning at the best possible level; a Senate committee is still considering (reportedly with favor) the upward revision of fee schedules of the Michigan Crippled Children Commission.

In summary, thanks to the support of all MSMS members and the understanding of Michigan's legislators, this has been an extremely successful year in the State Legislature for the medical profession, guaranteeing a continuation of the best in health care and service.

Constitutional Convention

MSMS testimony and recommendations to the appropriate committees of the Constitutional Convention have been instrumental in assuring that "health" references in the document to be submitted to the people are properly constitutional in nature.

Matters Referred for Action by the 1961 House of Delegates

A. *Resolutions re Relationship with Osteopathic Physicians:* Two Resolutions overlapped to some extent. Resolution No. 22 authorized the

Speaker to appoint a committee of members of the House of Delegates and of The Council to determine relationships between doctors of medicine and osteopathic physicians and to report to the 1962 House of Delegates. Resolution No. 40 instructed The Council to investigate the problem of relationships and to report to the next meeting of the House of Delegates. The Speaker felt two different studies were not necessary inasmuch as several members of The Council were to serve on the joint Council-House Committee authorized by Resolution No. 22 and The Council concurred in this view. The Relationships Committee will submit its report directly to the 1962 House of Delegates.

B. *Resolution No. 2 re Formation of Physical Fitness Programs:* The Council has acted to carry out the wishes of this Resolution "That MSMS, as part of its Presidents Program, contact every county medical society regarding the formation of local Youth Fitness Committees and urge these committees to meet with parent-teacher associations, school officials, athletic directors, coaches, and others. to develop a continuing program of youth fitness worthy of recognition." This project was invited to the attention of component societies through the Secretary's Letter of December 20, 1961; also the MSMS Child Welfare Committee on March 29, 1962 mailed to each component society a kit of appropriate materials developed by the Michigan Department of Public Instruction.

C. *Resolution No. 50 re Survey and Study of Chiropractic Practice in Michigan:* The Council was requested to seek the services of a foundation to conduct an unbiased survey of chiropractic practice in Michigan and to disseminate the results to Michigan doctors of medicine and to the Michigan Legislature. Several approaches were made. The Council on February 25 received a progress report that a request to a certain foundation "had been declined principally because a full and comprehensive survey on chiropractic had been completed recently in California." The Council recently heard that another foundation may be interested if the formal proposal were received from an impartial group such as a university. Two additional foundations are currently being contacted.

D. *Resolution No. 3 re Chiropractic Practice:* In this Resolution, the 1961 House of Delegates directed The Council to provide reliable information about chiropractic practice to all MSMS members, to the Michigan Legislature, and the general public. Implementation of this Resolution depended greatly on the obtaining of reliable factual information through the survey sought in Resolution No. 50 (see "C" above).

E. *Resolution No. 4 re Governmental Agency Reimbursement to Hospitals:* The Council was requested to refer this Resolution "recommending that all governmental agenies including welfare agencies reimburse all hospitals for no less than actual per diem cost of necessary hospitalization . . ." to the Michigan Hospital Association and to the MSMS Legal Affairs Committee. A bill was introduced in the Michigan Senate which would have accomplished this but since the State of Michigan did not have the necessary additional funds, the proposal died in committee.

F. *Resolutions re Social Security:* Several 1961 Resolutions—Nos. 7, 24, 25, and 51—touched upon this subject instructing The Council to conduct a poll of the membership re its views. The Council retained a research expert to help construct the questionnaire, which was pretested and approved by The Council and the Speaker of the House on December 13, 1961; it was mailed January 19, 1962 to every MSMS member. A total of 5,520 questionnaires were returned from the 6,775 members. The research consultant, pleased with the "remarkably high percentage of returns," tabulated the replies. The survey revealed that 8 of 10 members replying favored voluntary participation in Social Security and about 7 of 10 replying were against making Social Security compulsory. The results of the survey were given (as directed by the 1961 House Resolutions) to the MSMS Delegates to the June 1962 AMA House of Delegates for their guidance. Results of the survey also were reported in the May 25 Secretary's Letter, June 15 President's Letter, and The June MSMS Journal.

G. *Resolutions No. 9 and No. 32 re Public Representation on the Blue Shield Board:* The Reference Committee report recommended that these Resolutions be referred to The Council for transmittal to an appropriate committee for study. The Resolutions were referred by The Council December 13, 1961 to the Medical Care Insurance Committee which has conducted an appropriate study. Inasmuch as the report to the Governor by the Governor's Commission on Prepaid Hospital and Medical Care Plans may touch upon this subject, the Medical Care Insurance Committee will finalize its report for inclusion in the Supplemental Annual Report of The Council.

H. *Resolution 19 re Possible Governor's Study of Publicly-Owned Hospitals:* The House of Delegates referred this to the Medical Socio-Economics Committee for study. The Committee deferred action because it believed that this is an inopportune time to suggest that the Governor appoint a commission to achieve the objectives of such a study. The Committee believed that the intent of the Resolution could best be carried out by implementing Resolution No. 48, (see "I" below).

I. *Resolution No. 48 re Foundation Study of Publicly-Owned Hospitals:* The Council referred

this to the Hospital Relations Committee. Its report and recommendations will be included in the Supplemental Annual Report of The Council in September.

J. *Resolution No. 12 re Revision of the Uniform Fee Schedule for Governmental Welfare Agencies:* The Resolution recommended "That, with the approval of the county medical society, the Uniform Fee Schedule for Governmental Welfare Agencies be elevated to the level of the $5,000 family income of Blue Shield, commonly known as Schedule B." The Resolution further instructed that The Council take necessary action to implement the Resolution through component societies. The Council on December 13, 1961 ordered that the matter be explained in the Secretary's Letter. This information was transmitted to all component society officers in the Secretary's Letter of December 20, 1961.

K. *Resolution No. 13 re Physicians Use of Seat Belts:* The Michigan delegation introduced a Resolution into the 1962 AMA House of Delegates urging manufacturers to make seat belts standard equipment on all passenger cars; the Resolution was adopted.

L. *Resolution No. 16 re Expansion of the County Medical Examiner System:* The Delegates asked that MSMS initiate such legislation in the Michigan Legislature. A sub-committee of the Legal Affairs Committee has been working to prepare such a bill and to obtain necessary support for it.

M. *Resolution No. 42 re Congressional Contacts:* The Resolution asked that component societies be encouraged to send delegations to Washington, D. C. The appeal was made in the Secretary's Letter of December 20, and emphasized by Councilors and staff members in their conferences with component societies. Several societies did send delegations and reported such activity as rewarding, necessary and effective in reaching Congressmen.

N. *Resolution No. 47 re The Medical Society's Responsibility to the Public and the Ill Physician:* The Council referred this matter for study to the House of Delegates Committee on Indigent Physicians. The Committee will present its report to the 1962 House of Delegates.

O. *Resolution No. 45 re Major Medical Insurance Program:* The Council was asked to make appropriate studies of supplemental insurance programs for MSMS members. The Council referred the matter to the Professional Insurance Plans Committee. The Committee has not as yet completed an extensive study; its report will be part of the Supplemental Annual Report of The Council.

P. *Resolutions pertaining to Michigan Medical Service:* Resolutions No. 1 and No. 9 are reported by the appropriate committees. Matters transmitted to Michigan Medical Service by The Council, following its November meeting, were Resolution No. 10 re no publication of list of participating physicians; Resolution No. 37 re cost of health care; and Resolution No. 39 re voluntary payment funding plan.

Following are some pertinent comments about Council action on recommendations of the 1961 House of Delegates:

1. Recommendation that the Michigan Cancer Registry code cases reported to it to protect personal identity if that procedure is not now used. The Michigan Cancer Registry informed MSMS of its "principles governing disposition and use of central registry data." These state, in part, that "The confidential nature of all information submitted to the Registry is recognized and affirmed. Names of patients, participating physicians and participating hospitals will not be divulged under any circumstances except by court order."

2. Recommendation that MSMS urge the establishment of a single medical practice act. Such an official statement was made by MSMS in its testimony February 3, 1962 before the Governor's Commission on Prepaid Hospital and Medical Care Plan. The Legal Affairs Committee prudently stressed this stand with Legislators and the Constitutional Convention.

3. Recommendation that The Council appoint a Committee on Alcoholism and Narcotics Addiction on a trial basis. Such a committee was appointed, held three meetings, and presents its annual report on page 11.

4. Recommendation that the name of the Rheumatic Fever Control Committee be changed to "Cardiac Disease Control Committee." This was done.

5. Recommendation that efforts be intensified in the placement of physicians in rural Michigan communities. The mid-year report of the M.D. Placement Service of the Michigan Health Council (July, 1962) explains new ventures in continuous efforts to promote and interpret the medical needs of rural areas and indicates good results.

6. Recommendation that the five recommendations of the 1960-61 report of the Venereal Disease Control Committee be implemented. The Committee and Council have worked this year to carry out activities towards reduction of venereal disease in Michigan.

7. Recommendation that a critical survey be made re a loan fund for new physicians. A special committee appointed by The Council will

finalize its plans which will be submitted in the Supplemental Annual Report of The Council.

8. Recommendation that there be no disturbance in the flow and publication of scientific articles in The Journal. The Council is pleased to report that there has been no change in the steady flow of fine scientific papers in our publication.

9. Recommendation that the annual Directory of Members be on an annual basis. The Directory will appear in August and as an experiment it will be printed this year in three parts: (1) Directory of MSMS members for the doctors; (2) Directory of the Auxiliary for the wives, and (3) Directory of the Michigan State Medical Assistants Society for their own members. This change should result in a more efficient directory for each of the three groups and at a reduction in total cost.

10. Recommendation that the minutes of The Council "be made more communicative." Improvement in the mechanics of the minutes was instituted with the 1962 minutes to permit easier reference. The minutes were expanded in several areas—for example: short descriptions of committee action now make the minutes more meaningful. Constant efforts to communicate Council actions are being made; suggestions are always welcomed.

11. Recommendation that MSMS members be given information about how to obtain the "McNerney Report." The report is being published by the American Hospital Association, 840 North Lakeshore Drive, Chicago. No publication date has been announced as yet.

12. Recommendation that component societies and individual members "accentuate the positive" and tell the public that Medicine in the U.S.A. is the "Best." This appeal was stressed in the December, 1961 Secretary's Letter. It was emphasized in the official MSMS statement February 3, 1962 to the Governor's Commission on Prepaid Hospital Plans. Also it provided the basis for addresses to medical and lay organizations by MSMS officials and those of component societies, and was the major theme of many newspaper ads placed during 1961-62 by component societies.

13. Recommendation re the need for medical graduates in Michigan. The Council adopted a statement at its April 18, 1962 meeting in harmony with the 1961 House of Delegates Reference Committee statement: "That before the taxpayers of the State of Michigan are burdened with the high cost of establishing a wholly new school, the State Legislature should fulfill its commitments to the present two schools of medicine and expand their existing facilities to meet the alleged immediate need for graduating more doctors of medicine." A copy of the statement approved by The Council is attached as addendum B.

14. Recommendation that The Council make a statewide mailing soliciting contributions from MSMS members for the American Medical Association Education and Research Foundation. Such a mailing was made and helped place Michigan in a creditable position among the States. A.M.A-E.R.F. materials were offered in the May 25, 1962 Secretary's Letter to county societies for appeals to their members.

15. Recommendation that the name of the committee on Vocational Rehabilitation be changed to the "Committee on Rehabilitation." This was done.

16. Recommendation that MSMS study Insurance Commissioner Frank Blackford's recommendations to Blue Shield made June 15, 1960. The Medical Socio-Economics Committee has made a detailed study of these recommendations. The House also asked that these recommendations be referred to Michigan Medical Service which was done.

17. Recommendation that component societies be encouraged to discuss, at least every other year, the subject of malpractice. The proposal was made in the December 20, 1961 Secretary's Letter.

18. Recommendation that component societies be urged to create Medical Socio-Economic Committees. This appeal was featured in the December 20, 1961 Secretary's Letter. A letter from President Engelke was mailed January 17, 1962 to each component society. The appointment of such component society counterpart committees has met expectations of the MSMS parent committee for the first year.

19. Recommendation that component societies appoint "Medical Appeal Boards" to evaluate drivers whose licenses have been suspended due to physical conditions. The matter was explained to all members in the President's Letter of January 25, 1962.

20. Recommendation that members living in areas, not served by radio stations which carry the weekly MSMS scientific radio programs, discuss the inclusion of same with their local radio station managers. This message was presented in the December 20, 1961 Secretary's Letter.

21. Recommendation that there be the "greatest possible cooperation" between county medical societies and the Woman's Auxiliary. This was invited to the attention of component societies in the December 20, 1961 Secretary's Letter, and was stressed many times in connection with legislative action programs. Outstanding cooperation on various ventures, especially in legislative efforts this past year, has resulted.

22. Recommendation that the 1961 House-adopted MSMS Statement of Policy re Allied

Health Profession and Services in Hospitals be sent to component societies. The full statement appeared in the December Journal and was mailed to all component societies in January. The statement also was mailed in March to hospital chiefs of staff in Michigan.

23. Recommendation that MSMS Legal Affairs Committee support the proposed Interstate Compact on Mental Health. MSMS testified for and worked actively for the bills which passed both the House and the Senate. They were in different versions and the Legislature's conference committee was unable to reach a settlement.

24. Recommendation that The Council study further a plan for improvement of health maintenance in industry. A detailed plan has been developed and is being studied by the Occupational Health Committee.

25. The House of Delegates went on record "condemning as unethical practices the collection of, or the attempt to collect, fees for services rendered by interns and residents, unless such services are rendered under direct supervision of and under the responsibility of a staff member of the hospital." The President's Letter of January 25, 1962, to every member, discussed this matter and offered also a pertinent opinion of the MSMS Legal Counsel.

26. The House of Delegates instructed that a copy of the Report of the Relative Value Study be sent to every member of MSMS. The Report was printed and mailed.

Question:

The Council respectfully asks the House of Delegates for guidance on the details of the 1960 Resolution to honor MSMS employees for length of service. The Council presented the first of such employee service awards in December 1961. The Council, however, desires to refer back to the 1962 House of Delegates the question whether the monetary grants are to be cumulative.

Recommendations of The Council

1. That The Council be authorized to arrange Councilor Conferences prior to the 1963 Annual Session and thus share pertinent information with the delegates, alternate delegates and component society officers, as during the past five years.

2. That The Council be authorized to prepare, print, and distribute to each member an "Annual Report of MSMS" (including a brief of the financial report) following the general content and presentation used in 1961, to be mailed with the digest of Proceedings of the House of Delegates.

3. That the House of Delegates urge component societies to continue to hold "State Society Night Programs" to provide officers and representatives of MSMS to explain MSMS activities to more individual members. A growing number of such meetings drew plaudits during 1961-62.

4. That The Council requests the House of Delegates again to instruct that MSMS representatives be sent to Washington, D. C., in 1963 on "Michigan Day." The 1962 delegates, as did those in preceding years, reported the Washington trip as important, necessary, educational and productive.

5. That the House of Delegates once again encourage more component societies to send delegations of members to Washington, D. C., to discuss legislative matters with their elected Congressmen. The Council notes that a similar 1961 House of Delegates Resolution did encourage additional component societies to undertake this important legislative project.

6. That inasmuch as national attention is being focused on physical fitness, the House of Delegates select this public problem as one of the top-priority matters for activity by the medical profession in 1962-63. The excellent preliminary work done in this field by MSMS and component societies since the adoption of a similar Resolution last year should be vigorously pushed forward. Moreover, MSMS and component societies should seek to work with other organizations which are also concerned with this national health problem.

7. That the Michigan medical profession give increased support to the Medical Self Help Program of the AMA. This matter is of vital importance to our nation. Component societies should be urged to appoint representatives to aid interested local lay organizations in developing training classes. (It is noted that the Michigan Congress of Parents and Teachers at its 1962 State convention urged its local units to encourage such classes and to work cooperatively with local medical societies and civil defense organizations.)

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Addendum A

POLICY STATEMENT RE USE OF ORAL POLIO VACCINE

Adopted by MSMS Council, May 16, 1962

The Council of MSMS strongly urges all citizens of Michigan to properly protect themselves against communicable diseases by means of adequate immunization. This should include protection against smallpox, diphtheria, whooping cough, tetanus, polio, and, in certain areas, against typhoid fever. Particular emphasis should be directed toward immunizing of infants and children as well as unprotected adults.

Recently Types I, II, III live polio virus vaccines in oral form have been released for commercial distribution. These vaccines should be administered in single separate doses at six-week intervals and would best be used as a community-wide immunization program in an unprotected area where all citizens would receive doses simultaneously, rather than giving the oral vaccine haphazardly to scattered, isolated individuals.

Addendum B

MSMS POSITION ON MEDICAL GRADUATE NEEDS IN MICHIGAN

Adopted by MSMS Council, April 18, 1962

The Michigan State Medical Society believes that a greater number of doctors of medicine must be graduated from medical schools of Michigan in order to meet the demands of our rapidly expanding population for continuing adequate medical care in the future. In order to provide for these additional doctors of medicine, MSMS believes that the following policy should be followed:

1. That the Medical School of the University of Michigan should be adequately supported with sufficient funds to meet the commitments made when it expanded its class to 200 and to continue the proper training of the number of students which it presently serves, and that sufficient funds should be made available so that it can continue and improve its postgraduate training and research program.

2. That Wayne State University College of Medicine should be expanded to provide for the number of students represented by an entering class of 125 and also carry out a proper postgraduate training and research program, and further that the Wayne State University College of Medicine should be supported so it can expand to its goal of 200 entering students and also carry out an expanded postgraduate training and research program.

3. That, when the above conditions have been fulfilled, then a careful evaluation should be made of the best means of further increasing the number of doctors of medicine graduated from the medical schools of Michigan.

4. That MSMS takes no stand at this time as to the location of a third medical school but does offer its assistance to any legitimate and ethical organization working toward increasing medical graduates in Michigan, which seeks its help.

Hidden Tax---Michigan Law

Michigan laws place a hidden tax on sickness in order to subsidize State and County welfare programs, says the chief financial officer of The University of Michigan's 1,000-bed University Hospital.

Speaking at a local businessmen's club, Ernest C. Laetz said the "tax" hits the individual's pocketbook only during illness—"the time he can least afford added expense."

He said the condition was created by laws which allow the State to pay a maximum of $25 a day toward the hospitalization of children "regardless of the extensiveness of the care needed, which sometimes reaches $60 to $100 a day."

Laetz said hospitals all over Michigan are sustaining huge losses by taking care of State and County welfare patients.

"University Hospital alone lost $300,000 this past year by treating patients under the state's Crippled and Afflicted Children's Act.

"Naturally, these children must receive treatment. But as a self-supporting hospital, any economic loss must then be absorbed by other sick and injured people who happen to be financially solvent."

He called the legal framework of the welfare program "a violation of the economic law of management. It is completely incongruous to expect a non-profit institution to sell its services below cost."

He said University Hospital loses $850 to $1,000 for every major heart operation performed on a child under this State program. Children with extensive burns create an even greater "tax" for other patients.

Mentioning a Battle Creek child with 60 per cent burns, Laetz said the hospital spent $3,784 to give the child the proper medical and nursing care.

"But, by law, the Michigan Crippled Children's Commission could only reimburse us $1,472. That loss of $2,312 had to be supported by other patients.

"The result is the same as a hidden tax on sickness. Patients who might be having their own financial difficulties during illness are forced to subsidize a poorly financed State plan."

Laetz estimated that many Michigan hospitals in similar predicaments could reduce their rates "by a significant amount" if the State and County Aid programs would pay the bills of the patients whose care is ordered by law.

"The ultimate irony of the situation is that these involuntary contributors to charity, the other patients, cannot even claim their contributions as an income tax deduction," Laetz said.

Committee Reports

ANNUAL REPORT OF CHILD WELFARE COMMITTEE—1961-1962

The Committee held only one meeting during 1962. The prime subject this year was "Youth Fitness," as connected with the aims of the U. S. President in this regard. A mailing was made of kit material to the County Presidents and Secretaries as well as to the members of County Medical Society Youth Fitness and/or Child Welfare Committees. The same material was also distributed by the Department of Public Instruction to 2,000 school superintendents throughout the state.

The Committee has requested a place on the 1963 County Secretaries-Public Relations Seminar and is concerned with aiding medicine to take the lead in youth fitness programs and to cooperate with school officials in regard to the total health of youth, rather than limiting programs to physical stamina only.

Approval of a revised Students Medical Evaluation form, prepared by the Michigan Department of Health was granted. The Committee aided in the development of a Michigan State Medical Society policy regarding the oral polio vaccine and received a report of the Sub-Committee on Ophthalmology concerning the continuing program of pre-school vision screening.

An announcement was suggested for the President's Letter to all members of MSMS, concerning reporting of cretinism and action was recommended against a bill in the State Legislature regarding tests for Phenylketonuria.

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ANNUAL REPORT OF COMMITTEE ON LEGAL AFFAIRS—1961-1962

Immediately following the 1961 MSMS Annual Session, the Legal Affairs Committee convened to review resolutions directed to it by the House of Delegates for study or implementation. During this initial meeting a State Legislative Resource Kit was designed for the first time; this contained background information on fourteen major topics that proved to be of top interest during the 1962 session of the Michigan Legislature; the kit was given wide distribution among component societies.

Subsequently during the six months of the legislative session, a total of twelve "Legislative Reports" were issued to an expanded mailing list of over 1,000 physicians. The "Reports," drawn in a new format, contained summary comments of developments on not only the state legislative, but also the Constitutional Convention and federal Congressional fronts—along with detailed supporting information.

A number of specific, complex assignments were given the Legal Affairs Committee by the 1961 House of Delegates; in addition to these, some fifty of the more than 1,200 separate legislative proposals introduced in the Legislature required detailed attention by the Committee and staff. Some major legislation favored by the medical profession was enacted into law by a wise Legislature which, during the 1962 session, passed no bill inimical to the best health interest of the people.

House of Delegates Matters: Among House of Delegates resolutions under careful continuing study by the Committee was the desirability of a Single Medical Practice Act for Michigan. Testimony and recommendations were made to appropriate committees of the Constitutional Convention by an ad hoc Committee to Advise the Con-Con on Medical Matters which worked closely with the Legal Affairs Committee. As a result of this activity, matters pertaining to health in the proposed new Constitution are properly constitutional and not legislative in nature. Work is now going forward on the preparation of specific legislation to establish a single Medical Practice Act; the proposal will be polished this fall for introduction in 1963.

The House also directed an analysis of the feasibility of expanding the present permissive medical examiner system to a state-wide system under the direction of a state medical examiner. A sub-committee has been working, composed of a number of medical examiners in large, medium and small counties, and its work is scheduled for completion before the 1963 legislative session.

The House of Delegates further directed that every effort be made to legislatively raise the inadequate fee schedules of the Michigan Crippled Children Commission. The MSMS Socio-Economic Committee staff, working with the Legal Affairs Committee, thoroughly researched this

problem and general agreement was reached in the Legislature that the schedules should be raised. However, a legislative committee, constituted to officially recommend action, has been extended until the 1963 session, at which time, contingent upon state finances, increases in the fee schedules may be made. Concurrently, legislation will be introduced to extend the allowable billing period under the Act.

Professional Incorporation: The Legal Affairs Committee also determined upon a number of other legislative projects, chief among them being passage of a bill to permit professional incorporation in Michigan (similar to the Kintner-type plans now in effect in 15 states). Suitable legislation was drafted and, with the major support of MSMS and MAP, passed the Legislature, was signed by the Governor and is now law in this State.

The Committee, pursuant to House of Delegates instruction, supported legislation to place Michigan within the Interstate Mental Health Compact. This good legislation was steered through both the House and Senate, but bogged down in a conference committee of the two houses.

Chiropractic: The House of Delegates, by two separate resolutions, directed that a thorough study of the practice of chiropractic in Michigan be undertaken by an impartial foundation and the results of the study disseminated to all MSMS members. Contacts have been made with a number of foundations at the direction of The Council. The Michigan Health Council is cooperating with MSMS in developing recommendations for a suitable study. The only chiropractic legislation introduced in 1962 simply raised license fees—no expansion of chiropractic practice was permitted.

Hospital Licensing: A matter of dominant interest during the 1962 session of the Legislature was a proposal for creation of a new hospital licensing council with wide authority to license and regulate all Michigan hospitals. After several months of intensive study and in the light of a number of differences of viewpoint between those primarily affected by the proposal, the Legislature sent the bill back to committee, wisely making the necessary time available for all parties concerned with this proposal to develop a more acceptable bill for consideration by the 1963 Legislature.

Other legislation considered by the Legal Affairs Committee prior to—and during—the session included: (1) cancer quackery—a bill was introduced and, after review, the Legislature postponed consideration for a year pending further study; (2) chemical testing of drinking drivers—the Committee endorsed adoption in Michigan of the Uniform Vehicle Code which Code was passed by the Senate but failed in the House; (3) ambulance licensure—the Committee found legislation introduced to be undesirable, and the bill did not pass; (4) licensure of physical therapists—again an unsuitable bill was successfully defeated; (5) "good samaritan" legislation to exempt physicians from civil suit for rendering care in good faith—an MSMS bill passed the Senate but failed in the House; it has an excellent chance in 1963; (6) bills to improve laws affecting epileptics were endorsed by MSMS and passed into law; (7) bills to extend the use of auto seat belts were supported by MSMS and passed the Senate but failed for this year in the House.

Other Proposals: The Committee also concerned itself successfully with proposals involving the creation of County Boards of Institutions, licensing of nursing homes, dangerous drugs, creation of community mental health boards, an industrial health board, air pollution control, registration of sanitarians, and licensing of dispensing opticians. An effort to alter the Blue Cross Board membership was defeated. A bill to require government to pay full cost of medical and hospital care was supported but failed because of lack of sufficient state finances.

A comprehensive new pharmacy code was adopted by the 1962 Legislature; this lengthy bill had been thoroughly reviewed by the Committee and approved. Proposals to liberalize both Old Age Assistance and Medical Aid to the Aged were carefully studied, then referred for research to the MSMS Socio-Economic Committee which will recommend possible action for 1963.

This session of the Legislature was particularly occupied with taxation problems and, before determining on the types of taxes finally adopted, the Legislature gave consideration to applying the 4% sales tax to "services." The Committee was alert to any move in the direction of applying such a tax to professional services and The Council took a positive policy stand opposing any such action.

Podiatry: A bill was introduced which would have forced prepayment and private insurance companies to pay podiatrists without granting the companies any administrative latitude. This bill passed the House. MSMS assistance was then requested and given; this ill-conceived bill was defeated in the Senate.

A bill passed the House to require that all newborn babies be given a phenylketonuria test; MSMS suggested that such legislation was premature and the bill was held in the Senate committee.

An MSMS-endorsed resolution was passed creating a special Senate committee to study the implementation of the Kerr-Mills MAA program in Wayne County, to ascertain if this program is functioning at the best possible level.

King-Anderson: The year 1962 was marked by an intensive effort on the part of the Committee, as well as all component societies and individual members of MSMS, to urge the Congress to reject HR 4222, the King-Anderson bill. Individual conferences were held with all Michigan Congressmen in the latter half of 1961; during the spring of 1962 a highly concentrated campaign was con-

ducted throughout the State, with signal success as enthusiastically noted by the American Medical Association.

Thanks: Cooperation with these efforts by all MSMS members was magnificent. The Legislature also is to be congratulated on the continued wisdom of its decisions. For example, proposed resolutions introduced into the Legislature urging Congress to pass HR 4222 died in committee.

On all occasions when MSMS members were called upon to express their views to state or national legislators, they did so with telling effect; it was this support, and the understanding of legislators and congressmen, which were primarily instrumental in bringing about the highly successful legislative year just completed. The Committee expresses its gratitude and appreciation to all who cooperated in the past year's efforts to guarantee to Michigan's citizens, a continuation of the BEST in health care and service.

L. A. DROLETT, M.D., *Chairman*
O. B. MCGILLICUDDY, M.D., *Vice Chairman*
V. V. BASS, M.D.
W. C. C. COLE, JR., M.D.
J. C. ELLIOTT, M.D.
O. K. ENGELKE, M.D.
J. H. FYVIE, M.D.
K. H. JOHNSON, M.D.
P. T. LAHTI, M.D.
H. E. MALCOLM, M.D.
H. J. MEIER, M.D.
D. W. MCLEAN, M.D.
P. T. MULLIGAN, M.D.
C. I. OWEN, M.D.
J. S. ROZAN, M.D.
A. E. SCHILLER, M.D.
W. F. STRONG, M.D.
D. N. SWEENY, JR., M.D.
H. A. TOWSLEY, M.D.
B. C. WILDGEN, M.D.
MR. LESTER P. DODD, *Advisor*
MR. JOHN J. POWERS, *Consultant*

ANNUAL REPORT OF COMMITTEE ON MEDICAL SOCIO-ECONOMICS—1961-1962

The new Department of Medical Socio-Economics was established in 1961, as authorized by the House of Delegates, with the appointment on December 1 of Mr. Richard Campau as staff Research Director. Mr. Campau was an economist on the faculty of the University of Detroit.

Also retained was Professor C. T. Hardwick, Ph.D., as MSMS Economic Consultant. Professor Hardwick is Director for the Institute for Business Services, University of Detroit.

The office of the Department of Medical Socio-Economics is in Detroit, near research facilities and sources as recommended by the 1961 Medical Care Study Committee. The Research Director shares space in the MSMS Regional Office in the new David Whitney House.

The Committee on Medical Socio-Economics held its organizational meeting on November 8, and met again in December, April and June. A meeting is planned for September.

At its first meeting, it was recognized that the Committee and staff would be devoting a major portion of their efforts to preparing necessary material, presentations and testimony for the Governor's Commission on Prepaid Hospital and Medical Care Plans. The Commission's final report was given to the Governor on July 9, 1962. An evaluation of this document was instituted immediately.

In January, The Council approved a committee recommendation requesting component societies and specialty groups to appoint local medical socio-economic committees. In response to this request, twenty-one counterpart committees were appointed.

The Committee commends its staff for fine work during this initial year. Specific research projects and activities are detailed below. In addition, the staff provided individual help to MSMS committees and officers engaged in specific functions requiring compilation of information and data, much of which required original research.

The Research Director also assisted the Legal Affairs Committee with back-up material during testimony before various committees of the Michigan Legislature.

A. Governor's Study Commission on Prepaid Hospital and Medical Care Background: This Commission was appointed by Governor G. Mennen Williams on February 29, 1956, to examine hospital and medical costs and coverages in Michigan. Judge George E. Bowles was appointed Chairman. The W. K. Kellogg Foundation provided a grant of $382,135 to the University of Michigan to make a study for the Commission. This study, entitled "Study of Hospital and Medical Economics," is commonly referred to as the "McNerney Report." It was completed in the summer of 1961.

Highlights of MSMS Participation:

The Commission invited MSMS and other interested organizations to present their views on certain recommendations made in the McNerney Study. After detailed research by the MSMS Economics Department, the official MSMS presentation, after approval by The Council, was made to the Commission on February 3, 1962; Harold F. Falls, M.D., Committee Chairman, presented oral testimony assisted by President Otto K. Engelke, M.D., Council Chairman O. B. McGillicuddy, M.D., and Committee Vice-Chairman C. J. Tupper, M.D.

MSMS Consultant to the Governor's Commission:

H. F. Falls, M.D., in his capacity as MSMS consultant to the Commission, participated in all Commission hearings since their inauguration. With the hearings completed, a final Report to the Governor was presented on July 9 and made available to the public soon there-

after. The Committee began an immediate evaluation of this Report.

B. Research Regarding Michigan Crippled Children Commission Fee Schedules:

At the request of The Council, Mr. Campau performed a complicated research project to determine the net effect of upgrading the present MCCC fee schedules to the equivalent of the Michigan Medical Service (Blue Shield) M-75 Plan A schedule.

A bill was introduced in the 1962 State Legislature to accomplish this. The research data was needed for testimony in support of the bill. Hearings on the bill were completed but due to the State's financial plight, the proposal was not reported out of committee. Action will resume in the 1963 legislative session.

Some highlights of Mr. Campau's findings are as follows:

FISCAL 1960-61

CRIPPLED CHILDREN'S ACT

Actual Monies Expended for MD Services	$260,791
Estimated amount that would have been spent if Michigan Medical Service "A" Schedule were used	$458,993
76% increase necessary	$198,202

AFFLICTED CHILDREN'S ACT

Actual Monies Expended for MD Services	$414,619
Estimated amount that would have been spent if Michigan Medical Service "A" Schedule were used	$675,829
63% increase necessary	$261,210

C. Research Regarding Michigan MAA Asset and Income Limitations:

The Council requested that the Medical Socio-Economic Committee implement the Legal Affairs Committee recommendation of April 4, 1962 that a study be made of appropriate income and asset limitations concerning Medical Assistance for the Aged in Michigan for both single and married applicants. This was done and was reported to The Council for reference to the Legal Affairs Committee.

D. Research Concerning the Effectiveness of the Michigan Medical Assistance to the Aged Program:

Although MAA had been in effect for over a year, only limited and conflicting information was available re the effectiveness of the program in local areas.

The situation was especially cloudy in Wayne County. Facts were needed so that MSMS could maintain a position of leadership and point out the effectiveness of the program and recommendations for improvements if necessary.

Contact with component societies indicating effective program throughout the State except in Wayne County were complicated and reporting procedures made it difficult to assess the situation.

The Research Director, working with a committee of the Wayne County Medical Society and MSMS staff, collected data heretofore unavailable by researching records of the Wayne County Welfare Department, Bureau of Social Aid, and Bureau of the Budget. This information has been incorporated in a report and made available to appropriate committees.

This information will be especially helpful if MSMS is invited to testify before an Interim Senate Committee which was created in May to study the Michigan MAA program.

E. Research Regarding Michigan Professional Incorporation Law:

A study concerning the economic implications of House Bill 64, the "Professional Incorporation Bill," passed by the Michigan Legislature, was completed and forwarded to MSMS Legal Counsel as information.

F. Research Regarding National Legislation:

Various researches were made concerning the economics of the proposed national Medicare legislation (HR 4222 et al). Much of this material was encompassed in the MSMS public relations six-week campaign, and was relayed to all component societies.

G. Research Regarding County Welfare Physician Fee Schedules:

In July, a survey began to determine what welfare schedules are being utilized by all county social welfare departments in the State. When completed, this information will be made available to component societies.

H. Publications:

1. Research Bulletin 101—"A Collection of Selected Materials Pertaining to the McNerney Study"
2. Medical Economic Bulletin 201—"The Effect of the King-Anderson Bill on Michigan Taxpayers"
3. Special Bulletins—"Medical Economic Data for Selected Counties"; Wayne, Macomb, Genesee, Kent, Oakland, Kalamazoo.
4. "A Study of the Adequacy of Income and Asset Limitations of the Michigan Medical Assistance to the Aged Act"

Your Committee believes that good progress has been made during this first year's operation of the Medical Socio-Economic Department. The development of a stockpile of data and statistics, on

subjects of great importance to the present and future of Medicine, has facilitated the making of policy decisions by the elected leaders of your State Society.

The Committee plans to amplify its communication with local medical socio-economic committees and with the MSMS membership during the coming year so that practicing physicians are supplied with brief, articulate résumés of medical socio-economic facts and interpretation of economic phenomena.

Although of necessity, much of the work during 1962 was devoted to short range projects, the emphasis in 1963 will be amplified by the development of long range goals and trends, one of the original purposes for creation of this Committee.

In its supplemental annual report to the House of Delegates, your Committee will offer a verbal report during the Annual Session to make available the latest information on important issues and department activities.

H. F. Falls, M.D., *Chairman*
C. J. Tupper, M.D., *Vice Chairman*
S. E. Chapin, M.D.
A. J. Day, M.D.
D. L. Kessler, M.D.
F. C. Ryan, M.D.
D. N. Sweeny, Jr., M.D.
J. J. Coury, M.D., *Advisor*
J. J. Lightbody, M.D., *Advisor*
R. J. Mason, M.D., *Advisor*
O. B. McGillicuddy, M.D., *Advisor*

ANNUAL REPORT OF THE COMMITTEE OF PAST PRESIDENTS—1961-1962

Your Committee of Past Presidents met September 27, 1961 with an attendance of 7.

The Committee reaffirmed its previous action recommending a return to a more formal ceremony for the induction of the MSMS President; and further it suggested the exploration of the feasibility of establishing a suitable fee to be paid by those who are gaining membership for the first time in the State Society.

G. B. Saltonstall, M.D., *Chairman*
Henry Cook, M.D., *Honorary Chairman*
Otto O. Beck, M.D.
H. R. Carstens, M.D.
B. R. Corbus, M.D.
H. H. Cummings, M.D.
Milton A. Darling, M.D.
Wilfrid Haughey, M.D.
L. J. Hirschman, M.D.
R. J. Hubbell, M.D.
L. W. Hull, M.D.
W. A. Hyland, M.D.
K. H. Johnson, M.D.
W. S. Jones, M.D.
R. L. Novy, M.D.
J. M. Robb, M.D.
E. F. Sladek, M.D.
G. W. Slagle, M.D.
C. E. Umphrey, M.D.
Arch Walls, M.D.

ANNUAL REPORT OF THE COMMITTEE ON POSTGRADUATE MEDICAL EDUCATION—1961-1962

The Committee on Postgraduate Medical Education met on June 29, 1961 and January 18, 1962, and reviewed the postgraduate program. The reports from the chairmen in the extramural centers indicate that the program was a successful one. The attendance, subjects presented, and speakers on the program for 1961-62 were as follows:

Centers	*Fall*	*Spring*	*1961-62*
Alpena	18	19	23
Battle Creek	93	53	104
Bay City	—	50	50
Cadillac	—	19	19
Cass City	—	14	14
Grayling	—	20	20
Jackson	51	—	51
Lansing	88	56	115
Midland	34	46	52
Muskegon	63	70	83
Niles	40	51	61
Petoskey	27	26	34
Port Huron	60	46	67
Roscommon	14	—	14
Traverse City	31	—	31
Upper Peninsula			
Escanaba	20	15	21
Houghton	12	13	18
Iron Mountain	19	16	23
Ironwood	13	13	15
Marquette	30	31	42
Menominee	22	19	24
Sault Ste. Marie	31	16	35
	666	593	916

The following subjects were presented:

Fall Program

Aldosteronism
An evaluation of practical laboratory procedures
Angina pectoris
Convulsive disorders
Convulsive seizures in children
Depression and its significance
Hypertension
Iatrogenic ailments
Malignancies and benign growths of the head, face and neck
Medical and surgical considerations of the poor risk cardiac patient
Medical education
Obstetric hazards of the multiparous patient
Portal hypertension
Radiation therapy
Radioactive isotopes
Significance of serologic reactions in rheumatoid arthritis and collagen diseases
The acute abdomen
The management of the elderly confused patient
The missed fracture
Treatment of injuries of the hand

Spring Program

Adolescence
Anticoagulants and coronary disease
Care of patients with terminal neoplasms
Chronic fibrocystic disease of the breast and its variants
Current therapy of renal insufficiency
Fractures and dislocations of the hip
Modern trends in gastric surgery

Newer advances in dermatology
Newer advances in endocrinology
Non-surgical treatment of malignancies
Problems of impending kidney insufficiency and kidney shutdown
Problems of the newborn
Skin manifestations of systemic disease
The chemotherapy of malignancy
The diagnosis of renal vascular disease and renal tumors by photoscanning
The evaluation of practical laboratory procedures
Thyroid disease
Trends in vascular surgery
Visceral angina

The following-named physicians participated in the teaching program:

Richard J. Allen, M.D., Carl E. Badgley, M.D. Benjamin Barenholtz, M.D., John Batsakis, M.D., Samuel J. Behrman, M.D., Wm. H. Beierwaltes, M.D., Charles G. Child III, M.D., Richard J. Bing, M.D., George O. Clifford, M.D., F. James Conway, M.D., Arthur C. Curtis, M.D., Marion S. DeWeese, M.D., Reed O. Dingman, M.D., Harold F. Falls, M.D., Stuart M. Finch, M.D., F. Bruce Fralick, M.D., A. James French, M.D., Wm. J. Fry, M.D.

E. Richard Harrell, M.D., Thomas P. Haynie III, M.D., John T. Hayes, M.D., Dorin L. Hinerman, M.D., William F. Howatt, M.D., William H. Hubbard, M.D., Robert D. Johnson, M.D., Richard D. Judge, M.D., Isadore Lampe, M.D., Robert B. Leach, M.D., James E. Lofstrom, M.D., George H. Lowrey, M.D.

Robert E. Mack, M.D., Muriel C. Meyers, M.D., Martin Miller, M.D., Russell L. Mustard, M.D., Reed M. Nesbit, M.D., Joseph L. Posch, M.D., Raymond Read, M.D., William S. Reveno, M.D., Herbert J. Robb, M.D., William D. Robinson, M.D., Charles A. Sanislow, Jr., M.D., Gordon H. Scott, Ph.D., John M. Sheldon, M.D., E. Thurston Thieme, M.D., Harry A. Towsley, M.D., A. Burgess Vial, M.D., Raymond W. Waggoner, M.D., John M. Weller, M.D., Martha Westerberg, M.D., Jack C. Westman, M.D., Park W. Willis III, M.D., Paul V. Woolley, M.D., Herschel S. Zackheim, M.D., Chris J. Zarafonetis, M.D., George D. Zuidema, M.D.

Intramural Courses	*Attendance*
Allergy	25
Anatomy	36
Basic Sciences and their Clinical Correlation	48
Cardiac Resuscitation	77
Clinical Conferences	37
Clinical Internal Medicine	85
Diseases of the Blood	18
Diseases of the Heart	41
Electrocardiographic Diagnosis	70
Electrocardiography and Heart Disease	51
Endocrinology & Metabolism	51
Gastroenterology	67
Hemorrhagic Disease	41
Hematology (technologists)	29
Human Genetics	59
Infertility and Endocrinology	63
Interns and Residents	401
Liver Conference	455
Neurology, Clinical	41
Obstetrics and Gynecology	65
Ophthalmology	150
Otorhinolaryngology	27
Pathology, Surgical, Slides	12
Pediatrics	27
Prothrombin Testing (technologists)	5
Psychiatry	6
Psychiatry for Generalists	11
Psychiatry for Internists	4
Psychiatry for Pediatricians	15
Pulmonary Diseases	30
Radioactive Isotopes, Clinical Use of	23
Radiology, Diagnostic	26
Rheumatology	19
Selected Clinical Topics	20
Therapeutics, Recent Advances in	63
	2198

The programs and attendance in the extramural centers were reviewed and the Committee expressed satisfaction over the reports for the year. Many topics for inclusion in future programs were suggested and discussed by the Committee. These suggestions are most helpful to the Chairman in implementing the programs throughout the State.

The annual clinic day at Battle Creek was held in October 1961 and that in Bay City on May 23. Both programs were well attended by the physicians in the areas, and much interest expressed in their being continued.

New centers have been established at Cass City and at Petoskey at the request of the local physicians. Reports from both these centers have been most favorable.

The Committee wishes to thank all the physicians who have participated in this teaching program for their excellent contributions. The Committee also acknowledges with great appreciation the support and encouragement given the program by the Michigan Department of Health, the Wayne State University College of Medicine, and The University of Michigan Medical Center.

J. M. Sheldon, M.D., *Chairman*
J. R. Heidenreich, M.D.
E. I. Carr, M.D.
G. O. Clifford, Jr., M.D.
Otto K. Engelke, M.D.
K. H. Johnson, M.D.
C. Howard Ross, M.D.
D. J. Sandweiss, M.D.
R. M. Stow, M.D.
D. I. Sugar, M.D.
H. A. Towsley, M.D.
S. B. Winslow, M.D.
J. A. Witter, M.D.
H. H. Cummings, M.D.
M. A. Darling, M.D.
W. N. Hubbard, Jr., M.D.
G. H. Scott, Ph.D.

ANNUAL REPORT OF THE PUBLIC HEALTH COMMITTEE—1961-1962

The Public Health Committee held one meeting in May of 1962. Reports of activities of the various committees whose Chairmen make up the large majority of the members of the Public Health Committee were submitted at this time. In addition, reports by members who were unable to attend the meeting of the Public Health Committee were received by the Chairman.

Inasmuch as the reports of the various component committees have been made to The Council, it is not considered necessary to comment on them in this report.

These reports indicated considerable activity by

the various committees which reported directed toward the promotion of the public health, the control of diseases, and improved medical care of the people of Michigan. It was apparent also that changing concepts in diagnosis, treatment and disease control necessitated not only changes in name of certain of these committees but very definite changes in some of the committee's activities. Such changes were followed by increasing effectiveness of activities.

The Public Health Committee's activities are directed toward supplementing and complementing the Michigan State Medical Society's President's Program and it is hoped that each component committee of the Public Health Committee would continue to strive to complete its portion of the program by the time of the Centenary of the Michigan State Medical Society at its Annual Session in 1965.

The Committee members noted with interest the activities of various component committees in the development of diagnostic cards and urged their further development wherever advisable and practical.

It was considered advisable that a meeting of the Public Health Committee be held shortly after the annual meeting of the MSMS in 1962 so that the plans of each chairman of the component committees for the coming year could be discussed.

Oscar D. Stryker, M.D., *Chairman*
R. C. Bates, M.D.
B. E. Brush, M.D.
J. M. Dorsey, M.D.
R. E. Fisher, M.D.
J. H. Fyvie, M.D.
A. E. Heustis, M.D.
E. A. Irvin, M.D.
W. W. Jack, M.D.
W. M. LeFevre, M.D.
R. L. Mainwaring, M.D.
H. M. Nelson, M.D.
A. H. Price, M.D.
R. L. Rapport, M.D.
Benjamin Schwimmer, M.D.
J. M. Sheldon, M.D.
H. A. Towsley, M.D.
R. H. Trimby, M.D.
J. G. Molner, M.D., *Advisor*

ANNUAL REPORT OF THE PUBLIC RELATIONS COMMITTEE—1961-1962

By necessity, the introduction of new programs by this Committee during the past year has been limited due to the need for heavy emphasis on opposition to the King-Anderson Bill. However, programs begun in previous years have been carried on in effective fashion, improved and expanded.

In addition to the work noted in the report of The Council, and to the assistance given to many of the scientific and socio-economic committees, we have carried on a public informational program designed to demonstrate the concern of the medical profession for the public welfare and to increase its understanding of the principles and philosophies under which the practicing doctor of medicine serves.

Television and Radio

Five major television stations carried half hour programs contracted for by the MSMS on the subject of Medical Care for the Aged. Several special appearances were arranged on television either directly or in conjunction with county medical societies on the subject of King-Anderson, Kerr-Mills legislation. In cooperation with the Michigan Association of Professions — Michigan Health Council TV program, "Decisions — the Moment of Truth," which appears weekly over WJBK-TV, Detroit, the following doctors of medicine appeared: Richard E. Straith, M.D., Robert H. Trimby, M.D., George Lowrey, M.D., John Eliot, M.D., Richard C. Bates, M.D., T. S. Conover, M.D., William Hubbard, M.D., Sydney E. Chapin, M.D., A. H. Hirschfeld, M.D., Edwin Harmon, M.D., John Bielawski, M.D., James Blodgett, M.D., John E. Manning, M.D., George Agate, M.D., Robert I. Jaslow, M.D., William Bromme, M.D., Rosser Mainwaring, M.D., Ralph Cooper, M.D., Otto K. Engelke, M.D., G. Donald Cummings, M.D., Meryl Fenton, M.D., Samuel Jacobson, M.D.

This program dramatically demonstrated how and why professional people work in the public interest by the actual presentation of what they are doing. Several radio programs were orginated by MSMS and participation by doctors in these programs and the health series broadcast via the University of Michigan made excellent use of this medium of communication.

Motion Pictures

Although no new films were begun in this year due to limitations of funds, wide use was made of films prepared by the AMA and other authoritative organizations.

News Media

By means of press releases to all Michigan newspapers, radio and TV stations reports of current work of MSMS were carried to the general public. Special feature articles were written and distributed on both scientific and socio-economic subjects; stories were released to home town papers of doctors who received special honors; editorial kits were sent to all newspapers of Michigan; personal contact was made with newspaper editors either by MSMS staff or by county medical societies stimulated by MSMS. The work of the staff with the newspapers is a never ending task high-lighted by special work under the direction of the press committees at the Annual Session and the MCI. A relationship has been developed over the years based on mutual trust between MSMS and many of the major newspapers and wire services of the state so that MSMS is repeatedly called

upon to supply information and opinion on breaking news stories, thus giving us an opportunity to be sure that they are authentic when printed.

Speakers

Throughout the year the medical profession served the schools, colleges, service clubs, ancillary groups and business associations with a steady flow of speakers. In addition, for the 16th consecutive year a group of M.D. speakers appeared before service clubs of Detroit in conjunction with the Annual Session and MCI.

Pamphlets and Publications

Distribution of both AMA and MSMS originated publications was tremendously increased this year to the point where over a half million were distributed by conservative estimate. Accompanying these pamphlets in certain instances was an attractive easel display card for use in doctors' offices. In addition to the above, an unusually large number of publications was distributed at the State Fair exhibit sponsored by MSMS. Many legislative and other special bulletins were issued during the past year. Aid was given the Women's Auxiliary in the publishing of *The Auxilium*. Articles for JMSMS were contributed. "Planning Your Career" continues to be the leader among publications on the careers of medical associates.

Exhibits

The State Fair Exhibit was a major enterprise again this year requiring thousands of man hours in its planning, preparation and manning. A special health exhibit of major proportions involving a large number of other organizations is contemplated for 1963 and preliminary planning has gone forward to that end. Exhibits were prepared and displayed at meetings of the MSMS, career days in colleges and high schools, and a new exhibit has been built of a multi-purpose variety, its first appearance being supplemental to the State Fair exhibit.

PR Library

This growing repository of working materials continues to increase in value and usage. Each coming year will see increased service emanating from this valuable facility.

Intra-Professional Liaison

Visits to county medical societies, the Upper Peninsula Medical Society, and various medical specialty groups were stepped up this year increasing the intra-professional liaison within the organized segments of the profession. Innumerable requests for services by county medical societies and individual members were welcomed and carried out in expeditious fashion. Interestingly enough, these services have resulted in more and more of the county societies seeking advice from the MSMS on matters of public moment prior to taking action than has heretofore been the case.

Inter-Professional Liaison

Beginning with the Michigan Association of Professions an "association of the professions" movement is becoming nationwide in scope. The New York State Association of Professions has been incorporated and organized, and six other states have held organizational meetings. Some 32 states have taken preliminary steps toward organization of similar associations. The American Association of the Professions is receiving more and more interest among professions and by the public. The following is a condensed list of accomplishments of MAP:

1. MAP is successfully organized and financed. It is being copied in several other states and the American Association of the Professions is incorporated.

2. Three successful Congresses of the Professions have been held, thereby advancing professional relationships.

3. Eighty (80) weekly television programs depicting professionalism in its highest sense have been telecast over WJBK-TV, Channel 2, Detroit.

4. Legislation permitting incorporation of professional persons has been successfully introduced and passed in the Michigan Legislature.

5. Meetings with guidance counselors, and high school students interested in the professions have been held in various areas of the state and literature supplied schools.

6. The following business services have been successfully organized: Group Term Life, Major Medical and Group Disability Insurance; Office Furniture Leasing; Travel Programs.

7. *Monitor,* Journal of the Professions, and its accompanying Supplement are being published on a 12-month basis.

The Congress of the Professions in 1962 featured a truly amazing list of prominent speakers and the occasion was graced by a distinguished audience with visitors from 12 different states. Among the speakers were an ambassador, a governor, a congressman, a state senator, a state representative, superintendent of public instruction, chief justice of the Supreme Court, presidents of national professional societies, deans of graduate schools and distinguished laymen.

Inter-Health Organization Liaison

Directional and cooperative services were carried out in connection with the Michigan Health Council during the entire year. In cooperation with that organization close contact was kept with the Michigan Commission on the Aging and conferences bearing upon that important subject. The Michigan Health Council with the help of

the MSMS has embarked upon a home care program, carried out an M.D. placement service and is presently working towards a study of the unnecessary over-exposure to ionizing radiation. The potential value of this last study cannot be overemphasized. In addition to work with the Health Council, close contact has been had with nearly every other major health organization in Michigan and particularly with the pharmaceutical industry and profession.

Public Relations Conference

The County Secretaries-Public Relations Seminar was held in Lansing in January. Due to the keen interest in the subject of the King-Anderson Bill much of the time of this conference was spent on that subject. An excellent attendance coupled with an outstanding roster of speakers elicited an enthusiastic response and set the pattern for the very active campaign against King-Anderson and in support of Kerr-Mills that followed. A special conference for the training of speakers was held and well received by a large number of potential spokesmen for the medical profession. Any number of conferences were participated in by MSMS members and staff during the course of the year, all looking toward improving the "image" of the profession.

The Presidents Program

This valuable delineation of policy adopted by the House of Delegates has served as a guiding set of principles for MSMS public relations efforts and full use has been made of these principles in guiding the work of organizations related to the medical profession. The wisdom of the House of Delegates in adopting these guide lines has been repeatedly proven. Of significant import is the fact that this program preceded the so-called health program of President Kennedy and provided means on a voluntary basis whereby every objective noted by the U. S. President could be gained and additional desirable objectives as well.

Thus the Presidents Program has provided a statement of concern for the people's welfare and ways and means of demonstrating that concern. It continues to be the strongest bastion against the false criticism that the professional society of doctors is only concerned with the economic aspects of the doctor's practice.

The Public Relations Committee recognizes the necessity of continuing the very dynamic campaign to resist socialized medicine legislation and it urges that the county medical societies inaugurate public service programs at every opportunity to constantly refill the reservoir of public approval of the medical profession's basic objectives—to guard, preserve and promote the health of the people.

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E. S. Oldham, M.D., *Advisor*
A. E. Schiller, M.D., *Advisor*
T. P. Wickliffe, M.D., *Advisor*

AMA *Plans November Program*

A special scientific session, November 25, on air pollution will be one of the highlights of the American Medical Association's 1962 Clinical Meeting, November 25-28, at Los Angeles, California. Some 12,000 persons, half of them physicians, are expected to attend the meeting, at which more than 100 scientific papers will be presented. More than 200 scientific and industrial exhibits will be on display at the Shrine Auditorium.

Report of MSMS Delegates to American Medical Association

Actions of the House of Delegates and Report of the Scientific Section and Displays, 111th Annual Meeting of the American Medical Association, Chicago, June 24-28, 1962

Ninety resolutions were presented at the session, including a last-minute one to change the Constitution in order to permit the immediate past President to become a voting member of the Board. Seventeen of these resolutions endorsed the Kerr-Mills and opposed King-Anderson legislation; thirteen were related to compulsory Social Security coverage—eleven against and two for it.

Dr. Edward R. Annis of Miami, Florida, Chairman of the Speakers Bureau the past year, was overwhelmingly elected President-Elect to take office in June 1963, succeeding Dr. George Fister of Ogden, Utah, who became President.

More than 14,000 physicians were in attendance, with an overall medically connected group of 42,000.

Among the many subjects referred to by Resolutions were a Study of the American Board of Abdominal Surgery, Health Care for the Aged, Relations with the American College of Surgeons, Report of the Committee to Study Enlargement of the Board of Trustees, Voluntary Health Insurance for Physicians, Relations of the Association to state societies in regard to medical discipline, hearing of interval report of special committee to study the Communications Division and other subjects.

The report of the Reference Committee on Recognition of the Board of Abdominal Surgeons, (which held the longest hearing in point of time as well as the largest attended) was quietly received and approved on the floor. This was somewhat unexpected after the many hours of heated expression and debate in the conference room. The reception on the floor proved again that violent discussions can be well aired in the reference hearings. It is to the credit of the proponents of recognition that they accept the denial of the recommendation of a formation of such a Board in good grace on the floor of the House. This does not mean that the House will not hear more from this group in the future.

In the Session on Health Care for the Aged, there were seventeen resolutions presented supporting the Kerr-Mills program while opposing the King-Anderson bill.

In again affirming its opposition to the King-Anderson and supporting the Kerr-Mills bill, the House gave these reasons:

1. The lack of need for such a plan.
2. That it would provide inadequate care for all aged rather than complete care for those who need help.
3. The fact that inherent in the use of the Social Security mechanism are governmental controls of medical practice which would increase with the expansion of the program.
4. Deterioration of the quality of medical care not only for the aged but for the population as a whole.

In reaffirming strong support for the Kerr-Mills Act, the House declared that "the Kerr-Mills method should be given a fair and reasonable chance to meet the need and thus remove the demand for further Federal legislation."

It urged that in states where existing programs indicate a need for a Kerr-Mills implementing law, each state association should actively sponsor and promote with other responsible citizens the enactment of such a law. It also urged the state associations to "work actively with other responsible citizens in reviewing the functions of the law, evaluating its effectiveness and aggressively supporting improvements in programs to aid those aged who need help so as to achieve the provision of quality medical care and service."

The House took no action on one resolution which called for non-participation in the implementation of the King-Anderson Bill, but it urged individual physicians to give particular consideration to the following sections of the Principles of Medical Ethics:

> Section 1.—The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.
>
> Section 5.—A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients.
>
> Section 6.—A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care.

Commenting on the Association's fight against the King-Anderson Bill, Dr. Leonard W. Larson, retiring president, told the opening session of the House that "this great struggle has been testing again whether the science and art of medicine will be permitted to grow and flourish in freedom, or whether progress in medicine will be stunted and shriveled by the excesses of government control."

He declared that the steadfast refusal of the AMA to compromise on basic principles "has been

a source of strength for us and our friends." Dr. Larson expressed confidence in ultimate victory, but he added that victory will impose a solemn obligation of responsible leadership for all physicians.

Also commenting on the question of compromise, Dr. Fister in his inaugural address said "we will not compromise with those who regard medical care problems as simply playthings in the game of politics—gimmicks to attract the votes of the gullible."

AMA and State Jurisdiction

To implement one of the major recommendations made by the Medical Disciplinary Committee at the June, 1961, meeting in New York, the House approved a change in the Bylaws under which a proposed Section 1 (B) of Chapter IV will now read:

> In addition to such disciplinary action as may be taken under the constitution and bylaws of the component society and constituent association to which the Member belongs, or when a state medical association to which a member belongs requests the American Medical Association to take disciplinary action, or when at the request of the American Medical Association the state association to which the member belongs consents to disciplinary proceedings by the American Medical Association, the Judicial Council, after due notice and hearing, may censure him, or may suspend or expel any member of the American Medical Association from American Medical Association membership only for an infraction of the Constitution or these Bylaws or for a violation of the Principles of Medical Ethics.

AMA Board of Trustees

The House approved a report of the Ad Hoc Committee on the Board of Trustees which recommended that the size of the Board be increased from eleven members to fifteen members. This will be accomplished by adding three elected members and by including the immediate past president of the Association for a one-year term. The House also accepted a committee recommendation that set the term of office for elected Board members at three years and limited the number of terms to threee, for a maximum total of nine years service. To implement the House action, the Council on Constitution and Bylaws submitted changes in the Constitution and Bylaws for consideration at the 1962 Clinical Meeting.

At the June Session, it was necessary for the Constitution and Bylaws Committee to change a word in the Bylaws in order that the addition of the Past President would take immediate effect, because if it were laid on the table for one year, the retiring president of the past year would not have been eligible; due to the yeoman work of Dr. Larson, it was the feeling of the House that he be rewarded at this time.

American College of Surgeons

In its deliberations in New York in June 1961 the House stated it was ethical for a surgeon to properly recompense an assisting physician who helped during the operation. This was objected to by the American College of Surgeons as it created the possibility of fee splitting, as in many cases this could possibly be the referring physician.

Attempts by the Board of Trustees of the American Medical Association and the Board of Regents of the American College of Surgeons to clarify this matter have met with indifferent success to date, Dr. Hugh Hussey Chairman of the Board of Trustees, feels that the two groups are reaching a common ground of understanding and that in the future differences will be attempted to be ironed out in conference rather than in the newspapers. At this time the House restated its June 1961 policy.

> 1. Each member of the American Medical Association is expected to observe the Principles of Medical Ethics in every aspect of his professional practice.
> 2. Each doctor engaged in the care of the patient is entitled to compensation commensurate with the value of the services he has personally rendered.
> 3. No doctor should bill or be paid for a service which he does not perform; mere referral does not constitute a professional service for which a professional charge should be made or for which a fee may be ethically paid or received.
> 4. When services are rendered by more than one physician, each physician should submit his own bill to the patient and be compensated separately whenever possible.
> 5. It is ethically permissible in certain circumstances, however, for a surgeon to engage other physicians to assist him in the performance of a surgical procedure and to pay a reasonable amount for such assistance. This principle applies whether or not an assisting physician is the referring doctor.

There was a feeling of some that rendering separate bills to the patient might be the answer but it was reported that many insurance groups did not favor this situation; however, the Reference Committee did recommend separate compensation whenever possible.

Voluntary Health Insurance

In accepting a Council on Medical Service report on the utilization of state and federal tax funds to provide voluntary prepayment health insurance protection to assist the aged in meeting the costs of health care services, the House approved the following policy statement:

> 1. The need for application of the prepayment or insurance principle to protect our people against the costs of medical care is fully recognized and applies to all ages rather than to the aged alone.
> 2. Persons financially able to prepay their own expenses are expected to do so and must be encouraged rather than compelled to do so.
> 3. Persons financially unable to prepay adequately their expenses may properly be assisted to the degree necessary by their families, their communities, their states, and if these fail, by the Federal Government—but in conjunction with other levels of government.
> 4. The prepayment system should be devoid of governmental controls.

5. Dignity and self-sufficiency for the individual should be upheld.
6. The protection offered must be reasonably comprehensive rather than token in character.

The House recommended that the Board of Trustees and the Council on Medical Service explore all possibilities, using these principles as a basis.

Miscellaneous Actions

In considering reports and resolutions on a wide variety of subjects, the House also:

Learned that the Board of Trustees has instructed the Council on Drugs to conduct a study on the relationship between *tobacco and disease.*

Disapproved a suggestion that the Council on Medical Education and Hospitals be replaced by *two separate councils* on undergraduate and graduate medical education.

Referred to the Board of Trustees a proposal that at least six members of the *Council on Medical Education and Hospitals* shall be engaged primarily in the private practice of medicine in hospitals without a medical school affiliation and that no more than four members may be salaried personnel of a medical school or university.

Approved a resolution that *honorariums* be provided for the Association's elected officers in amounts to be determined by the Board of Trustees.

Adopted an AMA Statement of Principles on *Mental Health* and urged all constituent associations to lend active support to the First National Congress for Mental Illness and Health, to be held in Chicago in October.

Endorsed a resolution on *employment of the handicapped,* stating that each individual candidate for employment should be evaluated in light of his ability to perform useful work.

Approved a Guide to the Organization and Operation of *Airport Medical Services* submitted by the Council on Occupational Health.

Endorsed the joint statement on *narcotic addiction* by the AMA and the National Research Council of the National Academy of Sciences.

Urged automobile manufacturers to make *seat belts,* approved by the Society of Automotive Engineers, standard equipment on all automobiles.

Approved a recommendation that *AMA meetings* be scheduled as follows: Annual Meetings—1966, Chicago; 1967, Atlantic City, and 1968, San Francisco, and Clinical Meetings—1965, Philadelphia and 1966, Las Vegas.

Recommended that the Council on Medical Education and Hospitals conduct a study of *specialty residences.*

Reaffirmed its opposition to *compulsory coverage of physicians* under the Social Security Act, after receiving 11 resolutions opposing coverage and only two favoring the inclusion of physicians. New York and Pennsylvania put in Resolutions favoring Compulsory but even some of their delegates spoke against it.

Accepted the report of the *Committee on Communications* as information, and, in considering the committee recommendations, suggested that the Executive Vice President present a report of Association activities to the House at each meeting.

Opening Session

At the Monday morning session, the AMA presented a special citation to Jackie Cooper, star of television, stage and movies, for his portrayal of a Navy doctor in the "Hennessey" television program. The 1962 Joseph Goldberger Award in clinical nutrition was presented to Dr. Edwards Albert Park of Baltimore for his investigations of rickets and scurvy in children. Dr. Larson received a plaque for his work on the medical advisory board of the Sears-Roebuck Foundation. The American Medical Association was given awards of appreciation from the Cuban Medical Association in Exile and the Girl Scouts of America.

Inaugural Ceremony

Dr. Fister, in his inaugural address, declared that "we will cooperate, to our very utmost, with government officials, legislators and all Americans who are sincerely interested in finding sound, practical solutions to medical care problems—solutions which include both a respect for medical standards and a respect for the taxpayers." The Distinguished Service Award was presented to Dr. Cecil, and Donald D. Van Slyke, Ph.D., research chemist at the Brookhaven National Laboratories, received the first AMA Scientific Achievement Award honoring outstanding contributions to medicine by non-physician scientists. Mrs. George Papanicolaou was given a special award honoring her late husband's service to mankind.

Wednesday Session

Dr. Fister, in his Wednesday address, assured the House of Delegates, all AMA members and the citizens of this country that "during the next year there will be no letup in our campaign to preserve the high standards of our voluntary, free choice, medical care system." He said that no organization, especially one which thrives on challenge and opportunity to serve the public, can be static.

Election of Officers

In addition to Dr. Annis, the new president-elect, the following officers were named at the closing session on Thursday:

Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., vice president; Dr. Norman A. Welch, Boston, re-elected speaker of the House and Dr. Milford O. Rouse, Dallas, Texas, re-elected vice speaker.

Dr. Charles L. Hudson, Cleveland, Ohio and

Dr. Wesley H. Hall, Reno, Nev., were re-elected to five-year terms on the Board of Trustees. Dr. Elmer G. Shelley, North East, Pa., was renamed to the Judicial Council.

Re-elected to the Council on Medical Education and Hospitals were Dr. Warde B. Allan, Baltimore and Dr. W. Clarke Wescoe, Lawrence, Kansas.

Dr. George W. Slagle, Battle Creek, Michigan, was elected to the Council on Medical Service, succeeding Dr. Robert L. Novy, Detroit, who was ineligible for re-election.

For the Council on Constitution and Bylaws, Dr. Walter E. Bornemeier, Chicago, was re-elected, and Dr. James Monroe Kolb, Sr., Clarksville, Ark., was named to fill the unexpired term of the late Dr. Walter E. Vest, Huntington, W. Va.

In choosing Dr. Annis as president the House did a splendid thing for its relations with the public. As chief spokesman for the American Medical Association the past year Dr. Annis is known by millions who have heard him on television, radio and in person.

In his debates with Mr. Reuther many felt he had all the best of it—in his reply to Mr. Kennedy, the evening following the latter's address in Madison Square Garden, Dr. Annis brought out to many just what the discussion was all about and clarified it in many, many minds. In his numerous addresses to executive clubs, union groups, church and welfare organizations as also women's clubs and parent-teachers, he has been constantly on tour. His youth, adaptability and marvelous speaking presentation has made him an outstanding leader and spokesman.

True it is that he did not advance through the ranks, by way of the House, Board or both, as several did who were mentioned as presidential timber. This time it was considered best to close the ranks and put forward the one who can best do the job. This the House did. Your Chairman's opinion coincided with this action and he was very happy to be one of the nominating group at Dr. Annis' request.

Scientific Phase

In the scientific phase of the one hundred and eleventh meeting of the American Medical Association held in Chicago, June 25 to 29, more interest was created than at any previous meeting.

Possibly the newly designed and built McCormick Building on the lake front made possible a more adequate display of the many subjects.

As usual the pathological display created tremendous interest, being the largest one of its kind in the world. This year the display of pathological specimens of close to immediate removal (being removed in the operating rooms of the largest hospitals) displayed a gross picture of almost in situ.

The many demonstrations of the application of treatment facilities created great interest, the intimacy of discussion with the research personnel and teams, also the personal discussion of diagnosis and treatment with those people, of individual cases added a unique and valuable touch.

In the scientific forums and panels the subject that caused much consternation and was most thought provoking was one by the Chairman on the section on endocrinology, Dr. Edward H. Rynearson, professor of medicine at the Mayo Foundation who made the following statement while speaking at a panel session. he stated "I address myself to the individual physician who is seeing an individual patient dying of cancer for which every conceivable avenue of treatment has been explored with total failure, and this patient moreover is suffering from excruciating pain and is pleading for lease. These are too many instances, in my opinion, in which patients in such a situation are kept alive indefinitely by means of tubes inserted into their stomachs or their veins—and the whole sad scene thus created is encompassed within a cocoon of oxygen which is the next thing to a shroud. With all the fluids, vitamins, electrolytes, protein supplements, antibiotic agents, hormones and other preparations available to us now, we can keep people suffering for an indeterminate number of months."

Asserting "there is no treatment for death," Dr. Rynearson said the physician should recommend against "heroic measures" to prolong life in terminal cases if the patient, his relatives or his spiritual adviser do not request the special treatment.

Dr. Rynearson further stated, "a fair group" of doctors at the Mayo Clinic have "very solemnly shaken hands and agreed that under no circumstances will we keep treatment going indefinitely if one of us has an overwhelming stroke and is being kept alive by tubes." This discussion led one news commentator to state, this suggests to the physician to "Let God Take Over." I believe this is the place for the judgment and conscience to take over.

Another paper of utmost interest was one by Dr. Irvin S. Cooper of St. Barnabas Hospital for chronic diseases in New York. A New York teenage girl was smiling proof of the success of a revolutionary new bloodless surgical technique using extremely cold liquid nitrogen that spells help for hundreds of thousands afflicted with extreme disorders of the nervous system, including Parkinson's disease.

"I feel wonderful," said dark haired Miriam Kimmerman, 13, who last year was an almost completely disabled cripple. Miriam had suffered from a hereditary disease of the nervous system called dystonia, a rare chronic disorder marked by involuntary contortions of the arm, leg and body muscles. But Dr. Cooper performed two operations on Miriam's brain that have snapped

her back to a normal life. She will enter high school this wall as a freshman.

Dr. Cooper has been working for ten years on methods to relieve the rigidity of the muscles and shaking of the body associated with Parkinson's and other nervous disorders. "It is now possible to abolish Parkinsonian tremor and rigidity in properly selected patients with better than an 85% chance of lasting success," he stated.

Dr. Cooper's operation consists of drilling a small hole in the skull and through it inserting a five-inch cannula, or probe, deep into the area of the brain known as the thalamus, the mail relay center for sensory impulses. Liquid nitrogen at about 320 degrees below zero is fed through the tube, freezing and destroying the afflicted brain cells in the area, completely and permanently abolishing all tremor and rigidity on one side of the body. About six months after the operation on one side of the brain, the method is repeated on the other side.

Dr. Cooper showed "before and after" movies of four of his patients from the New York area who had accompanied him to Chicago for the AMA convention. The nitrogen freezing technique had been used on Miriam; on the others, different methods of destroying afflicted brain cells were used.

In the films, John Boyd, 69, who had suffered from severe Parkinsonism, was shown shaking so badly he was unable even to feed himself. Today he walked normally with perfect coordination.

Roy Benson, 11, had suffered from dystonia and had been horribly bent over and distorted. "I can really play baseball now," said Roy, an eighth grader.

Another dystonia victim Joan Sessa, 15, is now a junior in school. Joan, a pretty brunette, looks and acts perfectly normal. Said Joan's mother, Mrs. A. C. Sessa: "It is almost a miracle."

A discussion that held exciting interest concerned a revolutionary technique, viewed as holding promise as an aid to ailing hearts starved for blood. This was described by Dr. David Movitz, assistant professor of surgery at the Chicago Medical School, at one of the scientific sessions. So far, the technique has been tried only on dogs, but studies are going forward at the school aimed at its possible use on human beings, it was explained.

The procedure involves removing the spleen, and inserting fragments of that abdominal organ in between the two layers of the heart. In that position, the spleen tissue, which is rich in blood vessels, takes root and grows to provide an additional blood supply by establishing what is called collateral circulation. In an interview, Dr. Movitz said he reproduced in the animal hearts an abnormal condition called splenosis, which occurs in humans when the spleen is ruptured or torn.

This disease develops when small pieces of a ruptured spleen are carried throughout the abdomen by hemorrhage to implant themselves on the lining of that cavity. The same fragments then start growing and draw their blood supply from underlying tissue. Dr. Movitz noted that this fresh growth of spleen material substantially increases the blood flow. He reported that this condition developed in the pericardium, or outer heart walls, of five dogs on which he has tried the experiment so far. Dr. Movitz emphasized that although the investigations are still in a preliminary phase, the finding that spleen particles can be implanted into living hearts to enrich their blood vessel supply may open the way for a new surgical approach in treating humans. Should the procedure be perfected, it would be of particular benefit to victims of coronary occlusion.

In another report at the meeting, Dr. Herbert E. Kaufman of the University of Florida at Gainesville, told for the first time how a previously announced drug is able to kill one kind of virus as easily as antibiotics knock out certain types of bacteria. The substance, called 5-Iodo 2-Deoxyuridine, is the first chemical agent ever found effective against any virus caused disease. Dr. Kaufman, an ophthalmologist, said the compound is being modified for tests against many virus diseases and some forms of cancer.

At the present time, the compound, also known as IDU, is effective only when it can be brought into direct contact with a virus infected cell. The drug is a synthetic substance developed four years ago at Yale University for possible use against cancer. Known as an Antimetabolite the drug tricks living cells and viruses into using it as a false building block needed for virus reproduction. "This is the first specific agent effective against any true virus disease in animal or man," Dr. Kaufman said.

Dr. Kaufman said that DNU gets in its killing action by stopping viruses from going through the last step in using a cell's substances to fashion a complete virus molecule. The drug, he explained, shows promise only against viruses that contain what is called nucleic acid, otherwise known as DNA, formed in the heart or nucleus of a cell.

A group doing research in coronary disease reported their technique in using the left internal mammery artery to provide blood supply for the degenerating coronary vessels of the heart with enthusiastic results.

It also gives your narrator extreme pleasure to report Dr. Harold Falls of your Council and his group from Ann Arbor were awarded the coveted Billings Medal for their exhibit showing the close correlation between the hand and eye as an aid in the diagnosis of internal diseases.

Discussion on Tension Peaks followed by Heart attacks within six months to three years were very interesting when portrayed as warning periods in which prophylactic adjustment has been considered responsible for avoiding cardiac failure in many cases.

The new large mental health program to be initiated this fall as well as the Cigarette study program were announced as some of the subjects in the immediate offering.

An exhibit of artificial hearts with which dogs have survived for twenty-four hours, drew crowds to the display. So far, all the dogs have died as a result of blood clots formed inside the device, according to Dr. Willem J. Kolff, Cleveland, a member of the exhibiting group.

An implantable silicone rubber capsule capable of storing a drug, keeping it dry and releasing it slowly into the body was demonstrated by Lieutenants Judah Folkman and David M. Long, U. S. Naval Reserve Medical Corps, Bethesda, Md. The capsule is capable of holding a three to four year supply of insulin and could also be implanted in inoperable bone tumors to dispense nitrogen mustard locally in small doses over a period of days or weeks, they reported.

An extremely interesting paper was given by a California scientist, who advocated coronary research groups in hospitals which could save at least one hundred thousand lives yearly of the patients who enter hospitals for cardiac and other troubles.

There were numerous other interesting scientific panels and studies that space does not permit recounting at this time but most of which will be published in coming numbers of *The Journal of the American Medical Association.*

Wm. A. Hyland, M.D., *Chairman*
Wm. Bromme, M.D.
R. L. Novy, M.D.
G. W. Slagle, M.D.
J. R. Heidenreich, M.D.
O. J. Johnson, M.D.
L. R. Leader, M.D.
C. I. Owen, M.D.
R. E. Rice, M.D.
D. N. Sweeny, Jr., M.D.
G. B. Saltonstall, M.D.
J. M. Wellman, M.D.
Sidney Adler, M.D.
B. M. Harris, M.D.

Sessions Preliminary to AMA Annual Session

According to custom, several national organizations held meetings in Chicago on Sunday, June 24. The most important and significant were two sessions of the American Medical Political Action Committee (AMPAC).

American Medical Political Action Committee

A political education and action seminar in the Grand Ballroom of the Palmer House. This session, from 9:30 a.m. until noon, was devoted to grass roots politiking and effective medical political action.

Stephen A. Mitchell, prominent Chicago lawyer and former chairman of the Democratic party, was one of two former national chairmen appearing on the program. The other was Sen. Thruston B. Morton, the junior senator from Kentucky, who served as GOP national chairman during the administration of President Eisenhower.

Other speakers on the morning program were: Drs. Donald Wood, Frank C. Coleman, and Malcolm C. Todd, members of AMPAC's Board of Directors; C. Joseph Stetler, director of the AMA Legal and Socio-Economic Division; Joe D. Miller, executive director of AMPAC. Following the speeches of Mitchell and Morton, there was a question and answer period with members of the audience participating.

AMPAC's banquet—the day's other main activity—was held at 7 p.m., in the Grand Ballroom. The main speakers included:

Sen. John G. Tower, the first Republican to be elected to the U. S. Senate from Texas since Reconstruction, and the only Republican Senator ever elected by popular vote from any of the former Confederate States. One of the most articulate spokesmen for the Republican party, Sen. Tower serves on two major Senate Committees—Banking and Currency, and Labor and Public Welfare. He also is the only first term senator to be named to the influential Senate Republican Policy Committee. The youngest senator in the 87th Congress, he won election to the seat vacated by Lyndon Johnson in 1961, defeating a field of 71 candidates for the office.

Rep. Harold B. McSween, a lawyer from Alexandria, La., who was elected to the 86th and 87th Congresses. A Democrat, he is a member of the House Committee on Agriculture.

Dr. Edward R. Annis, a Miami surgeon, well known to the nation's physicians as chairman of the Speakers Bureau of the AMA. One of the profession's busiest speakers, he has participated in television debates with Senators McNamara of Michigan, Proxmire of Wisconsin, Javits of New York, Humphrey of Minnesota, and with Walter Reuther of the United Automobile Workers.

At the elections, Dr. Annis was made President-Elect, the first time in two decades anyone not in the active administration services was so elected.

Disaster Medical Care Conference

Seven elements considered necessary to prepare communities to cope with disasters—either man-made or natural—were outlined Saturday, June 23, by Dr. Luther L. Terry, U. S. Surgeon General.

Dr. Terry delivered the keynote address at the 10th annual National Conference on Disaster Medical Care at the Palmer House.

The program was presented by the Public

Health Service and was sponsored by the AMA's Council on National Security.

Elements outlined by Dr. Terry were:

Medical self-help training of the population.

Effective utilization of available medical and allied health personnel.

Expanded and coordinated operation of all available hospitals and other health facilities.

Prudent use of medical supplies and equipment.

Adequate supplies of safe water for emergency use.

Provision for the rehabilitation of damaged health facilities.

Restoration and maintenance of the surviving population's health.

Dr. Terry told the conference that physicians bear a heavy responsibility in community programs of health preparedness and that they must guide the development of disaster preparedness plans.

This is done, he said, by setting forth priority needs for the health skills, by outlining the special training that is required, and by determining the manner in which health personnel can be best organized in an emergency to assure the most efficient operations.

Conference of Presidents and Other Officers of State Medical Societies

The program which filled the afternoon was as follows:

Call to Order
KENNETH C. SAWYER, M.D., President

"The Conference and the Individual"
GEORGE M. FISTER, M.D., Ogden, Utah
President-elect of the Conference

"Youth Fitness Today and Tomorrow"
CHARLES "BUD" WILKINSON, Head Football Coach, University of Oklahoma, Norman, Oklahoma

"The Price of Freedom"
E. L. WILKINSON, President
Brigham Young University, Provo, Utah

"The Abolition of the Individual Federal Income Taxes"
CORINNE GRIFFITH
Beverly Hills, California

"Outlook for 1962"
HON. GORDON ALLOTT
Senator from Colorado

Reception

STATE BALL ROOM

Michigan medical men and workers were well represented in the scientific programs. There were 33 authors listed and eleven panel or discussion members. There were 12 Section officers or delegates.

Scientific exhibits involved the two universities and several hospitals, 66 in all.

James Milton Robb, M. D., was the "Guest of Honor" at the Section on Laryngology, Otology and Rhinology.

Doctors Invited to Congress On Mental Health in Chicago

Many Michigan doctors are expected to attend the first National Congress on Mental Illness and Health in Chicago, October 4-6. A special MSMS steering committee has been named to work for and at the Congress.

The Congress will be devoted to planning specific activities implementing the broad, new program developed by the American Medical Association's Council on Mental Health.

Participants in the Congress will meet in both topical and regional discussion groups. There will be no formal presentation of papers or discussions leading to new position papers on mental health problems. The guidelines for the Congress are spelled out in the new mental health program which was announced at the AMA's annual meeting in June.

The AMA is being held with the cooperation of the American Psychiatric Association and the support of the National Association for Mental Health.

Topical meetings will cover 21 subjects including research, hospital and community programs, personnel recruitment and physician education. Material developed in these discussions will then be brought up in the regional workshops.

More detailed information on the Congress and copies of the new AMA mental health program can be obtained by writing to AMA Council on Mental Health, 535 N. Dearborn, Chicago 10, Illinois.

The format of the Congress allows participants to consider first problems of special interest, decide on priorities for later action in their states or regions, and then transform them into positive programs tailored to the needs of their particular geographic areas.

* * *

Wayne Freshman Class Mostly Michigan Students

Ninety-eight students have been admitted to the September, 1962, freshman class at Wayne State University's College of Medicine. Ninety per cent of the students are from Michigan and 42 are graduates of the Detroit public schools. Wayne State has 53 representatives and the University of Michigan is second with 21.

Most of the prospective freshmen are graduates of colleges and universities or will graduate this June. The exceptions are 19 students enrolled in Wayne State's unique 2-4-2 plan. Under this program, students spend the first two years at the University in the College of Liberal Arts. The next four years are split between liberal arts and the College of Medicine. The final two years are spent all in medicine.

Editorial Comment

The Heavyweight Fight in Medicare's Arena

Detroit Free Press, May 23, 1962

The two most powerful lobbies in the United States are locked in a complete impasse on medical care for the aged.

The two are the American Medical Association, which opposes the President's plan, and the Kennedy Administration itself.

Of the two, the Administration is far more deserving of censure. It is using taxpayer money, taxpayer time, and the glamor of a taxpayer-provided forum to peddle a program which has more political than medical value.

The AMA at least pays its own bills. The Administration doesn't.

Yet last week almost every big name in the White House and the Cabinet was out on the road, glad-handing, exhorting, pleading and doing his best to confuse the people. The reason is that an election is coming up in November.

On Sunday, the Administration was given television time to make its pitch. On Monday, the AMA had to pay $75,000 for less than the same amount of time or coverage.

It is not good leadership for the President to huckster frantically for a piece of legislation which would provide more political advantage than assistance to the ailing elderly. It is not good government for the Administration to attempt to overwhelm the opposition by its sheer weight, without regard to facts.

The truth is that the President's proposal, called the King-Anderson Bill, would pay no doctor bills other than diagnostic service after the patient had paid the first $20.

It would only pay hospital bills after the patient had paid up to $90. It would pay for no surgery. It would pay for no prescriptions.

In addition, it would not help an estimated three million people over 65 who are not covered by Social Security or the railroad retirement act.

It would also provide benefits to anyone eligible for Social Security payments, whether needed or not. And it would, by raising the payments through Social Security, increase the costs by at least 17 per cent on those young people who, as the President himself said, are already "too heavily burdened" to pay for the cost of their parents' care.

Though the President didn't mention it, there are already better medical care plans available than the King-Anderson Bill. The Kerr-Mills law, put into effect about 18 mounths ago and implemented by 38 states including Michigan, is far better.

Under the Michigan Kerr-Mills formula, hospital, diagnostic and doctor bills are covered without limit, and nursing home service is provided for up to 90 days at a time. There is a means test to see that it serves, as the AMA put it, "the needy rather than the greedy."

There are also the voluntary health insurance plans, combined with pensions, which experts figure will cover more people by 1970 than the President's proposal does.

And there are the Javits-Rockfeller proposals, which would help the citizen pay for his own private, voluntary health insurance.

Of all the plans available, the King-Anderson Bill is probably the worst, the least effective and the most expensive. Yet the President has his political heart set on it.

Thus the lobbying, the heavy-handed huckstering, the misinformation will continue. And the President backs a bill that would do but little to help the elderly citizen who really needs assistance.

About the French Plan

Fellowship in Medicine Bulletin, April, 1962

(Excerpt from "Other Ways of Doing It" by Paul Kelly, the items are about the present social security system of financing health in France.)

"The other great burden (in addition to the cost) on the [French] patient is the bureaucracy-gone-mad attitude of the social security offices. The organization issues a 46-page booklet giving details of benefits and procedures. Both, especially the latter, are incredibly complicated. And scattered throughout are cosy reminders and recommendations: If your doctor prescribes a rest in the country do not go without the permission of your local social security office; ask your doctor if the medicine he is prescribing is listed for reimbursement; before you have any dental or orthopaedic apparatus do not forget to seek the permission of the local office"—and so on.

Technical Exhibits

(Listed Alphabetically)

Abbott Laboratories **Booth No. 21**
North Chicago, Ill.

Abbott Laboratories invites you to visit our exhibit. Our representatives will be happy to answer any questions you may have concerning our leading products and new developments.

A. S. Aloe Company **Booth No. 73**
St. Louis, Mo.

See 2nd Century, a fresh original concept in professional furniture combining major advances in function, durability and beauty.
Unique Vyn-Steel finish is a permanent laminate of virtually indestructible vinyl to steel.
Choose from a brilliant galaxy of eight striking color combinations.
Other Aloe specialties and new items are also displayed.

Armour Pharmaceutical Company **Booth No. 14**
Kankakee, Ill.

The Armour Pharmaceutical Company exhibit will feature:
Chymoral—systemic anti-inflammatory enzyme tablet which reduces inflammation, swelling and pain.
Chymar Aqueous—the parenteral systemic anti-inflammatory enzyme.
Chymar Ointment—the topical form.
Listica—a new tensitropic for the treatment of tension/anxiety.

Astra Pharmaceutical Products **Booth No. 77**
Worcester, Mass.

Descriptive literature pertaining to preparations of XYLOCAINE® HCl (ASTRA) for infiltration, regional block, peridural, spinal, and topical anesthesia, XYLOCAINE OINTMENT, XYLOCAINE JELLY, and XYLOCAINE VISCOUS for topical application, as well as ASTRAFER® I.V. for iron deficiency states will be available at the ASTRA booth presided over by Edward W. Friedel.

Ayerst Laboratories **Booth No. 59**
New York, N. Y.

Ayerst Laboratories invites you to visit our booth. Our representatives will be happy to answer any questions you may have concerning our products.

Baker Laboratories **Booth No. 81**
Cleveland, Ohio

You are invited to visit our booth where Baker's Modified Milk and Varamel, two successful products for infant feeding are on display.
Baker representatives will be glad to discuss the benefits of Baker Milk products which provide all the normal dietary requirements plus a reserve for stress situations.

Borcherdt Company **Booth No. 55**
Chicago, Ill.

Borcherdt's are featuring:
MALTSUPEX® (MALT SOUP EXTRACT), Liquid and Powder. Laxative modifier of milk for constipated babies. Also useful for geriatric constipation and pruritus ani.
UROLITIA®: For chronic urinary tract infections in older patients. Quickly relieves burning urination. Especially useful for use over a long period of time.
FERROMALT® TABLETS: Non-constipating Ferrous Sulfate Tablets. Good clinical response without usual side effects of oral iron. Ferromalt Tablets are inexpensive and well tolerated.
Stop in for recently published papers and samples.

Borden Company **Booth No. 25**
New York, N. Y.

Borden's new dermatologicals, unique amino acid therapy (reported to stimulate growth of epithelial tissue) available in water washable, antiseptic creams. Methakote, Methatar, Methaphor, also Methaseptic dermatological soak. A concise guide to treatment of skin disorders is available. Bremil and Mull-Soy foremost among Borden's complete line of infant formulas.

Bristol Laboratories **Booth No. 60**
New York, N. Y.

Bristol Laboratories' exhibit features information on a new special-purpose penicillin, Prostaphlin, orally effective against penicillin G-resistant staphylococci. Now for the first time treatment in the office and home as well as in the hospital becomes practical and reasonable with this new oral "staph-cidal" penicillin.

Burroughs Wellcome & Company **Booth No. 11**
Tuckahoe, N. J.

You are cordially invited to visit Burroughs Wellcome & Co. (U.S.A.) Inc., Booth No. 11, for the latest information on Burroughs Wellcome products. New products of particular interest at this meeting, which the staff will be pleased to discuss with you, include "Emprazil-C" for the treatment of coughs and colds, "Migral" Forte for the treatment of vascular headaches, and "Cardilate" for angina.

Cambridge Instrument Company **Booth No. 41**
New York, N. Y.

Cambridge Instrument Company, Inc., New York City, Booth 41. The new Cambridge "Trans-Scribe" Battery-Operated Portable Electrocardiograph, the Cambridge "Versa-Scribe"—the Versatile Portable Electrocardiograph; and the Cambridge "Simpli-Scribe" Model Direct-writing Portable Electrocardiograph will be displayed at this booth. Also other important Cambridge instruments, including the Audio-Visual Heart Sound Recorder, Operating Room Cardioscope, Educational Cardioscope, Multi-Channel Physiological Recorder, Electrokymograph, Plethysmograph, pH Meters, Pulmonary Function Tester, and Cambridge External Defibrillator.
The Cambridge Engineers in attendance will be glad to give you complete information on these instruments.

Cameron Surgical Instruments Company **Booth No. 68**
Chicago, Ill.

Cameron Surgical Instruments Company will display its new Electrosurgical Units for hospital use, as well as for modern office surgery. Also showing Suction Coagulation Electrodes, Snares, Biopsy Forceps, electrically illuminated Ano-Procto-Sigmoidoscopic equipment (distal and proximal), Vaginal Speculae, Otoscope, Mouth Gag, Transilluminators, Gastroscopes, Headlites, Binocular Loupes, Luxo Lamps, etc.

Carnation Company **Booth No. 9**
Los Angeles, Calif.

Carnation Company cordially invites you to visit Booth No. 9, where Medical Representatives will be pleased to welcome members and guests of the Michigan State Medical Society.
Recent literature and information regarding Carnation Evaporated, Carnation Instant Non-Fat and Carnalac are available.
Any question pertaining to our physician-researched material for use in your practice or hospital will be cheerfully discussed.

Chicago Pharmacal Company **Booth No. 64**
Chicago, Ill.

Ciba Pharmaceutical Products **Booth No. 24**
Summit, N. J.

Ser-Ap-Es is a combination of 3 antihypertensive agents from CIBA research—Serpasil, Apresoline and Esidrix—in a single tablet. Ser-Ap-Es lowers blood pressure uniformly, consistently and safely while it controls such hypertensive complications as anxiety, impaired renal circulation and edema. With Ser-Ap-Es moderate to severe hypertension can be treated effectively, with greater convenience, and at lower cost to the patient.

Coca-Cola Company **Booth No. 83**
Atlanta, Ga.

Ice-cold Coca-Cola served through the courtesy and cooperation of the Detroit Coca-Cola Bottling Company, and The Coca-Cola Company.

Coreco Research Corporation **Booth No. 39**
New York, N. Y.

The Coret Camera embodies the principle of electronic flash and constant automatic control of such factors as distance, aperture, field, and exposure. Now, for the first time, Coreco offers a completely automatic professional clinical camera purposely designed to achieve the ultimate in surface, intra-oral, and intra-tubular photography. Because of the simplicity of operation, even an inexperienced doctor or nurse can achieve consistently perfect color transparencies.

Desitin Chemical Company **Booth No. 33**
Providence, R. I.

DESITIN OINTMENT: For treatment of burns, ulcers, diaper rash, abrasions, etc.

DESITIN POWDER: Relieves chafing, sunburn, diaper rash, etc.

DESITIN SUPPOSITORIES AND RECTAL OINTMENT: Relieve pain and itching in uncomplicated hemorrhoids, fissures. No anesthetics or styptics.

DESITIN BABY LOTION: Protective, antiseptic.

DESITIN ACNE CREAM: A non-staining, flesh-tinted "Medicream" for the treatment of Acne Vulgaris.

DESITIN COSMETIC & NURSERY SOAP: Super-mild.

DESITIN SUPPOSITORIES WITH HYDROCORTISONE: Prompt response to inflammatory conditions in proctitis, severe pruritus, edema.

DESITIN OINTMENT WITH HYDROCORTISONE: Hydrocortisone 1% and ¼% (as the alcohol) added to the well known Desitin formula of Norwegian cod liver oil.

DESITIN HYDROCORTISONE CREAM: Non-staining, washable hydrophilic base with sol. al. acetate. An elegant cosmetic preparation with HC 1% and ¼%.

DESITIN COR-D-TAR CREAM: Desitin Cor-D-Tar Cream—Hydrophilic base with a special solution coal tar 3%, non-staining diiodohydroxyquin 2% and hydrocortisone 1% and ¼%. For bacterial-fungal-infectious eczematous discomfort.

Dictaphone Corporation **Booth Nos. 69-70**
Detroit, Mich.

Displayed are the latest in our product line of Transisterized Thought Recording Instruments. A "Who's Who" of Hospitals, Clinics, Sanatoria, and Professional men in all specialized fields of medicine, substantiate the time-saving values of Dictaphone products. We welcome you to visit our booth and become better acquainted with our total product line.

Dietene Company **Booth No. 36**
Minneapolis, Minn.

Have you tasted Meritene? Meritene is the good-tasting Protein-vitamin-mineral Food Supplement prescribed to provide concentrated nutrition for patients with poor appetite or tolerance for ordinary food. Visit our booth and let us serve you a cool, refreshing Meritene Nourishment.

While there, review also our Dietene Reducing Plan, designed to get better cooperation from over-weight patients. The Dietene Plan provides optimum nutrition and maximum satiety without the use of drugs.

Meritene and Dietene are advertised only to the Medical Profession.

Eaton Laboratories **Booth No. 57**
Div. of Norwich Pharmacal Company,
Norwich, N. Y.

Our Medical Service Representatives at the Eaton Booth welcome the opportunity to be of service to you. Complete information is available concerning the nitrofurans, The Eaton Medical Film Library, Student A. M. A. Photo Salon and other special services to the profession.

Thomas A. Edison Industries **Booth No. 80**
Voicewriter Division,
Detroit, Mich.

Encyclopedia Americana **Booth No. 56**
Grand Rapids, Mich.

Encyclopedia Britannica **Booth No. 7**
Detroit, Mich.

Ferndale Laboratories, Inc. **Booth No. 67**
Ferndale, Mich.

Ferndale Surgical, Inc. **Booth No. 65**
Ferndale, Mich.

New pharmaceuticals, diagnostic instruments, and equipment for the physicians of Michigan from a Michigan company at your service since 1897.

Geigy Chemical Corporation **Booth No. 26**
Yonkers, N. Y.

Geigy cordially invites Members and Guests of the Association to visit its exhibit.

The exhibit features important new therapeutic developments in the management of inflammation, as well as current concepts in the control of hypertension and edema; depression; obesity, and other disorders, which may be discussed with physicians and representatives in attendance.

Gerber Products Company **Booth No. 34**
Fremont, Mich.

NEW! Gerber Modilac. . . . A complete formula for infants. Gently processed to conserve nutritional values, it has true milk color and flavor. Modilac *is* milk adapted to the infant's physiologic requirements by the addition of a selected carbohydrate, replacement of butterfat with corn oil and supplementation with needed vitamins. Ask for complete information.

Great Books with the Syntopicon **Booth No. 49**
Oak Park, Mich.

You can now ask great minds like Plato, Aristotle, Tolstoy, and Freud about love, art, democracy, justice . . . any of more than 163,000 ideas or topics that interest you. The Syntopicon guides your hand to the proper volume. Your eyes are directed to the right chapter, page, and paragraph. Your mind is then enriched by the very words the author had to say about the idea.

Hack Shoe Company **Booth No. 2**
Detroit, Mich.

A representatives sampling of HACK SHOES for men, women and children will be on display.

You are invited to discuss any problems applicable to correct shoeing and might, indeed, take the opportunity of a visit to the main HACK SHOE STORE, just 4 blocks from the convention hotel, to experience for yourself the careful fitting which has made this firm the "prescription shoe store" of choice over the past 46 years.

Health Insurance Council **Booth No. 30**
New York, N. Y.

Our exhibit is designed to provide general information on health insurance as underwritten by insurance companies. In addition, it also makes available information on uniform claim forms for use by doctors and hospitals in support of health insurance claims.

H. J. Heinz Company **Booth No. 20**
Pittsburgh, Pa.

Heinz Baby Foods are now made by a revolutionary patented new process. Important results are: Superior Nutrition—Flavor—Color and Consistency. Taste some of these varieties at the Heinz Booth.

Newest varieties are: Apple-Cherry Juice; Strained and Junior Vegetables and Dumplings with Beef and Bacon; Junior Meat Sticks; and Junior Apricots and Oatmeal.

Literature available for office and for patients use.

Holland-Rantos Company, Inc. **Booth No. 10**
New York, N. Y.

H-R exhibit will feature and representatives will be pleased to discuss: HYVA Gentian Violet Vaginal Tablets. . . A simple vaginal antimycotic treatment; Improved NYLMERATE Jelly & NYLMERATE Antiseptic Solution Concentrate for: Trichomoniasis, Leukorrheas and Mixed Infections; HOLLANDEX Skin Ointment for dermal disorders—diaper rash; chafing; skin dryness; prickly heat; sunburn. KOROMEX a Vaginal Jelly for conception control when "Jelly Alone" is advised; KORO-FLEX Contouring Diaphragms and Sets; KOROMEX Diaphragms and Sets.

G. A. Ingram Company **Booth Nos. 85-86**
Detroit, Mich.

THE G. A. INGRAM COMPANY will display the following equipment, all of which is the latest for use in medical diagnosis and treatment:

Diapulse
Burdick Electrocardiograph
Automatic Rotating Tourniquet
Swenko Hypothermia Gastric Apparatus
Burdick Near-Infrared Lamp
Ritter All-Purpose Table
American Office Autoclaves

Your inspection of this equipment is invited and will be welcomed.

Johnson & Johnson **Booth No. 32**
New Brunswick, N. J.

Johnson & Johnson will display the latest improvements in surgical dressings, as developed by the Johnson & Johnson Research Laboratories. Of special interest is SURGICEL Absorbable Hemostat, a major advance in the control of hemorrhage which does not depend upon the normal clotting mechanism. DERMICEL Surgical Tape, a newly-improved high strength special-purpose dressing tape for patients with unusual adhesive tape sensitivity is an outstanding addition to the complete line of adhesive tape products. Other products, designed for your office, hospital or patient use, are also displayed. You will find well-informed representatives pleased to discuss these products or provide information on any other items made available by the world's largest manufacturer of surgical dressings and baby products.

Knoll Pharmaceutical Company **Booth No. 71**
Orange, N. J.

DILAUDID Cough Syrup for "the cough that must be controlled"; also DILAUDID ampules for pain that synthetic analgesics frequently fail to relieve.

NICO-METRAZOL Elixir and Tablets have increased the scope of ORAL Metrazol Therapy, a field in which METRAZOL and Vita-METRAZOL are widely and successfully used in fatigue, geriatric and convalescent patients. QUADRINAL Suspension and Tablets for asthma. AKINETON Tablets and Ampules the new agent for Parkinsonism.

A. Kuhlman & Company **Booth No. 37**
Detroit, Mich.

The A. Kuhlman & Company invites you to visit our exhibit where we will have several representatives on hand to discuss with you our complete line of examining room furniture, diagnostic instruments, surgical instruments, and physicial therapy equipment.

Lederle Laboratories **Booth No. 89**
Pearl River, N. Y.

Members of the Michigan State Medical Society and their guests will be most cordially welcomed at the Lederle booth, which is No. 89. Our medical representatives, who have access to the world-wide Lederle research organization, are prepared to furnish information regarding Lederle products and your related medical questions.

Eli Lilly & Company **Booth Nos. 91-92**
Indianapolis, Ind.

You are cordially invited to visit the Lilly exhibit located in space Nos. 91-92. The Lilly salespeople in attendance welcome your questions about Lilly products and recent therapeutic developments.

J. B. Lippincott Company **Booth No. 78**
Philadelphia, Pa.

J. B. Lippincott Company presents, for your approval a display of professional books and journals geared to the latest and most important trends in current medicine and surgery. These publications, written and edited by men active in clinical fields and teaching are a continuation of more than 100 years of traditionally significant publishing.

Lloyd Brothers, Inc. **Booth No. 75**
Cincinnati, Ohio

Welcome to the Lloyd Brothers exhibit. Our professionally trained sales representatives will be pleased to greet you and discuss the merits of our products in your practice. Of particular interest will be a new booklet on erythropoietin, the erythropoietic hormone.

P. Lorillard Company **Booth No. 95**
New York, N. Y.

P. Lorillard Company invites you to visit the Kent Cigarette Exhibit.

We are presenting the Story of KENT Cigarettes. And a big part of that story is: your taste buds will tell you why—you'll feel better about smoking with the taste of Kent.

Kent with the Micronite filter refines away harsh flavor. . . refines away hot taste. . . makes the taste of a cigarette mild and kind. Kind-tasting to your taste buds, kind-tasting to your throat.

A table cigarette box with your signature in gold will be a pleasant souvenir of your visit to the convention.

Maico Hearing Service **Booth No. 87**
Detroit, Mich.

An exhibit of the latest in electronic developments relating to: Eyeglass hearing aids, behind the ear hearing aids, and barrette type hearing aids. See the latest development in Electronic Instruments for Auscultation, accomplishes what no Acoustic Stethoscope can. The latest in portable audiometers will be shown, also.

Marion Laboratories **Booth No. 38**
Kansas City, Mo.

DUOTRATE. Cardiovascular problems requiring vasodilation can be effectively treated with less expense, less inconvenience and greater therapeutic effect. Duotrate PLATEAU CAPS provide a continuous method of drug release on a b.i.d. dosage— available in four dosage combinations. We invite you to visit our booth for information and reprints of current studies.

Marshall Erdman & Associates **Booth No. 35**
Madison, Wis.

Erdman Prefabricated Medical Buildings are the result of years of experience in the field of design, manufacturing and construction. No other company has had as extensive experience in this field. Over 800 doctors are now practicing in Erdman-built Medical Buildings.

Experienced Architects, Engineers, and Construction Superintendents of the Erdman Company will design, manufacture, and build your Medical Building from the land-planning stage until you open the door into your own office. We assume total responsibility for the entire job.

S. E. Massengill Company **Booth No. 48**
Bristol, Tenn.

Best wishes from Massengill to the Michigan State Medical Society for a most successful convention! Our representatives will welcome the opportunity to discuss products of interest to you. On display will be several Massengill specialty preparations, and literature and samples will be available, should you desire them.

Mead Johnson Laboratories **Booth No. 90**
Evansville, Ind.

The Mead Johnson Laboratories' exhibit has been arranged to give you the optimum in quick service and product information. To make your visit productive, specially trained representatives will be on duty to tell you about their products.

Medco Products Company **Booth No. 72**
Tulsa, Okla.

Presenting the MEDCO-SONLATOR. Providing a new concept in therapy by combining muscle stimulation and ultra sound simultaneously through a SINGLE Three-Way Sound Applicator.

The MEDCO-SONLATOR is a distinct advance in the effectiveness of physical therapy in your office or hospital. A few minutes spent in our booth should prove of value to your practice.

Medical Arts Supply Company **Booth No. 6**
Grand Rapids, Mich.

Theme: New Hamilton Modular units as back ground and storage for today's treatment room and laboratory equipment featuring EGG(Micro wave, Ultrasound, Photomotograph. New Laboratory equipment including micro hematocrit, will be displayed on the units. Emphasis will be placed on new items for each type practice.

Medical Protective Company **Booth No. 94**
Fort Wayne, Ind.

With exceptional proficiency in defense, so essential to the Doctor's protection today, The Medical Protective Company offers unexcelled coverage in any claim or suit for damages based on professional services rendered or which should have been rendered. Its experience from the successful handling of 83,000 claims and suits during 63 years of Professional Protection Exclusively is unparalleled in the professional liability field.

Merck Sharp & Dohme **Booth No. 23**
Div. of Merck & Co., Inc.
West Point, Pa.

The theme of the Merck Sharp & Dohme exhibit is "SERVICE TO MEDICINE." One phase features the details of the Merck Sharp & Dohme Postgraduate Program. Another feature includes information on teaching films for use by the profession, and also, lay films that can be utilized to portray the story of medicine to the lay public. The exhibit is concluded with a display of fingertip files on selected Merck Sharp & Dohme products.

Michigan Bell Telephone Company **Booth No. 88**
Detroit, Mich.

The Michigan Bell Telephone Company exhibit will consist of an activated counter which will have telephones that are designed for handicapped people.

Special equipment, such as Artificial Larynx, Hands Free Telephone and School-to-Home equipment designed for children confined to their beds, and the latest volume control handset for the hard of hearing will be on display.

Michigan Medical Service **Booth Nos. 42-43**
Detroit, Mich.

You are cordially invited to visit our booth to obtain current information regarding Michigan Medical Service (Blue Shield). Our representatives will gladly visit with you and answer any questions you may have with regard to your Blue Shield Plan.

Michigan State Medical Society **Booth No. 22**
Life, Health & Accident Insurance Program
Lansing, Mich.

You are cordially invited to stop at Booth No. 22 and discuss the MSMS Life, Health and Accident Insurance Program.

Representatives of the MSMS carriers will be present to answer questions concerning your MSMS group coverage.

Hermien Nusbaum & Associates **Booth No. 44**
Chicago, Ill.

Hermien Nusbaum and Associates, booth 44, invite you to visit and discuss the following products and

their value for personal use; patient help; and service to hospitals and other institutions:

DIAPREX and CARBAX: Ointments to prevent diaper rash and relieve diaper rash and other skin irritations.

EVENFLO: Glass and boilable plastic bottles; preemie, cross cut and silicone locking nipples; information re TAKE HOME FORMULA PAK for hospital maternity patients.

INFANSEAT: Baby carrier from birth to one year; feeding chair and safe car seat. Cuddleseat: Carrier for Toddler. Safe-T-Bather: gives mothers confidence during those first months of timidity and inexperience.

STA-CLOSE: Childproof lock for kitchen cabinets.

STA-STIL: Extremity restraint glove for intravenous therapy.

TFL DROPPER: Sterile one piece, soft and flexible; ideal for use in administering Sabin oral Salk vaccine to infants.

Ortho Pharmaceutical Corporation **Booth No. 40**
Raritan, N. J.

Welcome to booth No. 40 where ORTHO is proud to present a complete line of products for the control of conception. Also on display are the three forms of SPOROSTACIN Chlordantoin—Cream, Lotion, and Solution, for use in monilial vaginitis, monilial dermatitis, and fungus infections of the nails and in paronychia.

Your questions on these and our other well-known products will be most welcome.

Pacific Medical Equipment Company **Booth No. 15**
North Hollywood, Calif.

(Authorized Sales outlet for Audio-Digest subscriptions and equipment) Audio-Digest Foundation (a non-profit subsidiary of the California Medical Association), gives the busy physician a time-saving tour through the best of some 600 current medical journals, plus the highlights of scores of national meetings. Time-proven, but still unique—these medical tape-recorded services are now offered in six series—General Practice (issued weekly and bi-weekly), and Pediatrics, Internal Medicine, Surgery, Obstetrics and Gynecology, Anesthesiology (all issued semi-monthly). Digest subscribers listen in their car, home or office. Carefully selected tape equipment for playing the Digests is offered at the convention by Pacific Medical Equipment Company.

Parke, Davis & Company **Booth Nos. 50-51**
Detroit, Mich.

Medical service members of our staff will be in attendance at our booth to discuss important Parke-Davis specialties which will be on display.

Pfizer Laboratories **Booth No. 17**
New York, N. Y.

Professional Service Representatives from Pfizer Laboratories will be pleased to have you in attendance at their booth to discuss the latest products of Pfizer research.

Procter & Gamble Company **Booth Nos. 3-4**
Cincinnati, Ohio

Ivory Soap (Procter & Gamble) offers a series of time-saving leaflet pads for doctors, each pad containing fifty identical tear-out sheets. These sheets, which may be given to patients, contain routine instructions covering general home care. There are also samples of other free, helpful material prepared especially for physicians.

Professional Management **Booth No. 84**
Battle Creek, Mich.

A complete business service for the medical profession.

The trademark PM is the brand of distinction which identifies Professional Management offices affiliated with Black & Skaggs Associates, Inc., of Battle Creek, Michigan. It assures PM clients that the knowledge, experience and integrity of the oldest and largest such firm in the country are at their command.

Those in attendance at the MSMS Convention are cordially invited to stop at Booth No. 84 and meet the experienced PM Executives there.

Randolph Surgical Supply Company **Booth No. 13**
Detroit, Mich.

R. J. Reynolds Tobacco Company **Booth No. 5**
Winston-Salem, N. C.

Welcome to the R. J. Reynolds Tobacco Company Exhibit! You are cordially invited to receive a cigarette case (monogrammed with your initials) containing your choice of CAMEL, WINSTON Filter, Menthol Fresh SALEM, or CAVALIER King Size Cigarettes.

A. H. Robins Company **Booth No. 82**
Richmond, Va.

Please stop by the Robins display for complete information about the new anticholinergic ROBANUL. . . . Also the nasal decongestant DIMETAPP—now available as an elixir especially suitable for pediatric patients. DIMETANE EXPECTORANT contains the same components as DIMETAPP plus glyceryl guaiacolate, a drug of choice among expectorant agents.

Also featured: DONNATAL (a whole family of reliable sedative-antispasmodic formulas).

Roche Laboratories **Booth No. 16**
Nutley, N. J.

TARACTAN—an original development of Roche research for rapid control of agitation associated with anxiety or depression. By providing a greater margin of safety in both acute and chronically disturbed patients, Taractan overcomes many limitations of the phenothiazines.

J. B. Roerig & Company **Booth No. 27**
New York, N. Y.

J. B. Roerig and Company will welcome members of the medical profession at the company's exhibit of leading specialties and new products. Representatives will be in attendance to answer any questions you may have. Roerig recently introduced a number of new products which representatives at the exhibit will describe and give information on the results of clinical reports.

Wm. H. Rorer, Inc. **Booth No. 31**
Fort Washington, Pa.

ANANASE TABLETS — A new oral fibrin-depolymerizing (Proteolytic) enzyme from vegetable origin. MAALOX—A pleasant tasting, non-constipating, antacid in Suspension, Tablets No. 1 and Tablets No. 2.

Representatives will glady answer questions concerning Rorer Products.

Ross Laboratories **Booth No. 45**
Columbus, Ohio

Ross Laboratories, manufacturer of Similac, features SIMILAC WITH IRON, supplying 12 mg. of ferrous

iron per quart of feeding at no additional cost. SIMILAC WITH IRON is designed for use when exogenous iron is indicated in infancy to support the usual diet, and to provide prophylaxis against iron depletion starting about the fourth month or 14 pounds. The newest booklet in the Ross Developmental Aids will be on display at the booth.

Rupp & Bowman Company **Booth No. 46**
Highland Park, Mich.

You are cordially invited to visit our booth. We expect to have a few new and interesting items on display.

Sandoz Pharmaceuticals **Booth No. 53**
Hanover, N. J.

Sandoz Pharmaceuticals cordially invites you to visit our display at booth No. 53, where we are featuring Mellaril, Cafergot P-B, Torecan and a brand new product, Sansert.

Any of our representatives in attendance, will gladly answer questions about these and other Sandoz products.

W. B. Saunders Company **Booth No. 1**
Philadelphia, Pa.

Harold Rozema will again be on hand with the complete Saunders' clinical line. Books new since last year's meeting include: Allen, Barker and Hines: Peripheral Vascular Diseases; Cantarow and Trumper: Clinical Biochemistry; Huffman: Gynecology and Obstetrics; Nealon: Fundamental Skills in Surgery; O'Donoghue: Treatment of Injuries to Athletes; Parsons and Sommers: Textbook of Gynecology; and Todd-Sanford: Clinical Diagnosis by Laboratory Methods by Davidsohn and Wells.

Julius Schmid, Inc. **Booth No. 18**
New York, N. Y.

An interesting and informative exhibit featuring IMMOLIN Vaginal Cream-Jel for use without a diaphragm, RAMSES Flexible Cushioned and BENDEX Diaphragms; RAMSES Vaginal Jelly; VAGISEC Liquid and VAGISEC PLUS Jelly and Suppositories for vaginal trichomoniasis therapy; and XXXX (FOUREX) Skin Condoms, RAMSES, SHEIK and SHEIK LUBRICATED Rubber Condoms for the control of trichomonal reinfection.

G. D. Searle & Company **Booth No. 58**
Chicago, Ill.

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.

Smith, Kline & French Laboratories **Booth No. 28**
Philadelphia, Pa.

Our Representatives welcome the opportunity to discuss SK&F products with you and are always ready to be of help in any way they can. Products featured are: (1) Combid® Spansule® capsules; (2) Parnate® Tablets; (3) Eskatrol® Spansule® capsules; and (4) Stelazine® Tablets.

E. R. Squibb & Sons **Booth No. 93**
New York, N. Y.

E. R. Squibb & Sons has long been a leader in development of new therapeutic agents for prevention and treatment of disease. The results of our diligent research are available to the Medical Profession in new products or improvements in products already marketed.

At booth No. 93, we will be pleased to present up-to-date information on these advances for your consideration.

Strasenburgh Laboratories **Booth No. 74**
Rochester, N. Y.

"STRASIONIC" RELEASE equals PREDICTABLE RELEASE.

This means predictable, continuous medication for your patient over an 8-12 hour period with a single dose.

"STRASIONIC" RELEASE can assist in achieving:
Predictable weight loss of 1-3 pounds a week.
Effective cough control for 8-12 hours.
Continuous anti-spasmodic and anti-cholinergic action.

The Stuart Company **Booth No. 66**
Pasadena, Calif.

A cordial invitation is extended to all members and guests attending this meeting to visit the Stuart Company booth. Specially trained representatives will be in attendance to answer your questions on new products developed in our new and modern laboratories which have received international acclaim.

Testagar & Company **Booth No. 61**
Detroit, Mich.

Testagar & Co., Inc., invites you to stop at their booth to see their newest release "REDODERLEIN" —REPLACEMENT DODERLEIN BACILLUS THERAPY. Doderlein Bacillus is a recognized therapy in a convenient, stable, readily available form. Redoderlein may be the therapy of choice in Vaginitis, Trichomonas, Monilial, Senile or non-specific. Stop at our booth and receive literature on the newest concept in the treatment of various forms of Vaginitis.

S. J. Tutag & Company **Booth No. 54**
Detroit, Mich.

S. J. Tutag & Company will exhibit the new Granucap and Strata-Tab forms of CYDRIL W/TULOIDIN.

CYDRIL W/TULOIDIN is the anorectic with a specially processed defatted thyroid for the treatment of stubborn obesity.

Our representatives are looking forward to seeing you at the booth to discuss this new product.

The Upjohn Company **Booth No. 52**
Kalamazoo, Mich.

Profesional representatives of The Upjohn Company are eager to contribute to the success of your meeting. We are here to discuss with you products of Upjohn research that are designed to assist you in the practice of your profession. We solicit your inquiries and comments.

United States Tobacco Company **Booth No. 47**
New York, N. Y.

King Sano Cigarettes, Sano Plain, Sano All-Havana Cigars, and Sano Pipe Tobacco . . . all with less than 1% nicotine by weight will be sampled and displayed to the members of the medical profession. Sano meets the nicotine problem in the only effective way, by reducing the nicotine from the tobacco itself, before Sano Tobacco products are made. Sano Cigarettes, Cigars, and Pipe Tobacco for good sense and good taste.

U. S. Vitamin & Pharmaceutical Corp. **Booth No. 79**
New York, N. Y.

ARLIDIN—unique vasodilator—vasorelaxant will be on display. Increases blood flow to ischemic areas of brain, eye, inner ear, and the extremities. Arlidin provides sustained relief of pain, ache, spasm, intermittent claudication. Indicated in arteriosclerosis obliterans, thromboangiitis obliterans, diabetic atheromatosis, night leg cramps, ischemic ulcers, Raynaud's syndrome, thrombophlebitis, cold feet, legs and hands. Product brochures and other pertinent literature will be available.

Wallace Laboratories **Booth No. 62**
Cranbury, N. J.

Wallace Laboratories exhibit features information on "Capla," a new kind of drug for the treatment of hypertension. CAPLA acts specifically on the brain centers that control blood pressure, rather than indirectly or peripherally, as do older antihypertensives. It has proved nontoxic in clinical use, and side effects are limited to occasional cases of drowsiness, usually transient in nature.

Warner-Chilcott Laboratories **Booth No. 63**
Morris Plains, N. J.

PERITRATE®—for the patient with coronary artery disease—with or without angina. Peritrate increases myocardial blood flow and oxygen supply safely—with no significant change in blood pressure, cardiac output or pulse rate.

GELUSIL®—the physician's antacid—for lasting relief of pain and control of gastric acid by neutralization and adsorption. The unique dual gel formed by Gelusil protectively coats irritated and eroded mucosa. Gelusil is inherently nonconstipating—*contains no laxative.*

Warren-Teed Products Company **Booth No. 76**
Columbus, Ohio

The Warren-Teed Products Company will feature four specialty products at their exhibit booth No. 76.

ILOPAN®—A brand of d-pantothenyl alcohol for intramuscular or subcutaneous use.

ILOPAN-CHOLINE®—Oral therapy for gastrointestinal gas retention in ambulatory patients.

MODANE®—A deconstipant for relief and rehabilitation of the atonic bowel.

KAON®—A potassium gluconate elixir.

Westwood Pharmaceuticals **Booth No. 8**
Buffalo, N. Y.

Westwood invites physicians to stop by their booth to discuss their unique dermatological products:

Fostex Cream, Lowila Cake, Sebulex, Alpha-Keri, Fostex Cake, Lowila Emollient, Fostril.

These products are particularly suitable for personal use by physicians and their families who may be plagued with dandruff, acne, dry and itchy skin, and sensitivities to soap. Register, so that we may send prescription units to your home.

White Laboratories **Booth No. 19**
Kenilworth, N. J.

Permitil Chronotab Tablets (brand of repeat-action tablets of fluphenazine dehydrochloride), for uninterrupted control of anxiety symptoms; Sorboquel and Sorboquel with Neomycin Tablets, for "dual-action" control of acute and chronic diarrheas; and the widely prescribed otic preparations, Otobione and Otobiotic.

Winthrop Laboratories **Booth No. 29**
New York, N. Y.

Winstrol, the new complete "physiotonic" for the underweight, the weak and debilitated. Builds body tissue, confidence and alertness. Winstrol is highly active orally, simple to administer and suitable for prolonged therapy in most cases.

W-T-S Pharmaceuticals **Booth No. 12**
Rochester, N. Y.

DESENEX: Most widely prescribed fungicide used in the prevention and treatment of athlete's foot and other superficial fungus infections of the skin.

CALDESENE: Provides a lubricating and emollient film which is effective in the prevention and treatment of diaper rash and minor skin irritations.

List Michigan Offices For Vocational Rehabilitation

The Michigan Division of Vocational Rehabilitation reports that it received some inquiries about their district offices after publication of the May issue of THE JOURNAL, which was dedicated to Rehabilitation.

The mailing address for the state office of Vocational Rehabilitation is Post Office Box 1016, Lansing.

The addresses for the various district offices are listed below along with the names of supervisors:

Division of Vocational Rehabilitation

District Offices and Suboffices

Wayne County—North

609 Boulevard Building, 7310 Woodward, Detroit 2; S. E. Westerman, District Supervisor. Special Education Project: William Burgess, Supervisor. Rehabilitation Institute: 261 Bradley Avenue, Detroit 1; Elsa Williams, Supervisor.

Wayne County—South

14507 West Warren, Dearborn 1; Harold T. Hayes, District Supervisor.

Northville State Hospital

41001 West 7 Mile Road, Northville; Raymond Hinz, Supervisor.

Jackson

703 Insurance Exchange Building, Ruth Montgomery, District Supervisor.

Lansing

1121 May Street, Rehabilitation Industries.

Kalamazoo

301 West Cedar, Arthur Norcross, District Supervisor.

Flint

706 Metropolitan Building, Kenneth Lane, District Supervisor.

Grand Rapids

554 Houseman Building, G. A. Kamiske, District Supervisor.

Saginaw

308 State Office Building, John Roraback, District Supervisor.

Traverse City

1131 East Front Street, Henry A. B. Gustafson, District Supervisor.

Alpena (Suboffice)

No street address necessary.

Marquette

Suite D., Nester Block, Stanley Corneliuson, District Supervisor.

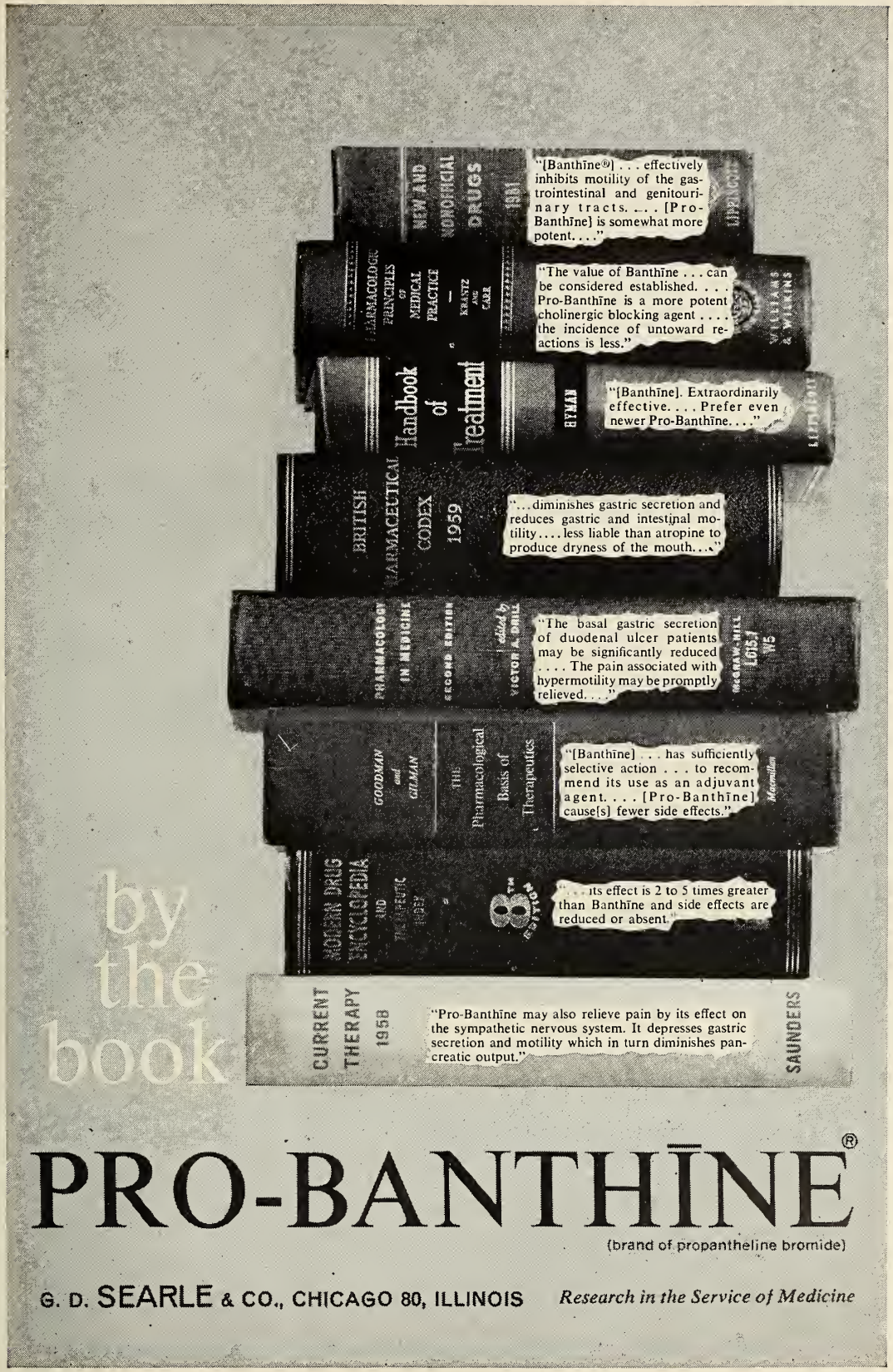
Ann Arbor

Room 1310, University Hospital; Deane Rinck, Supervisor.

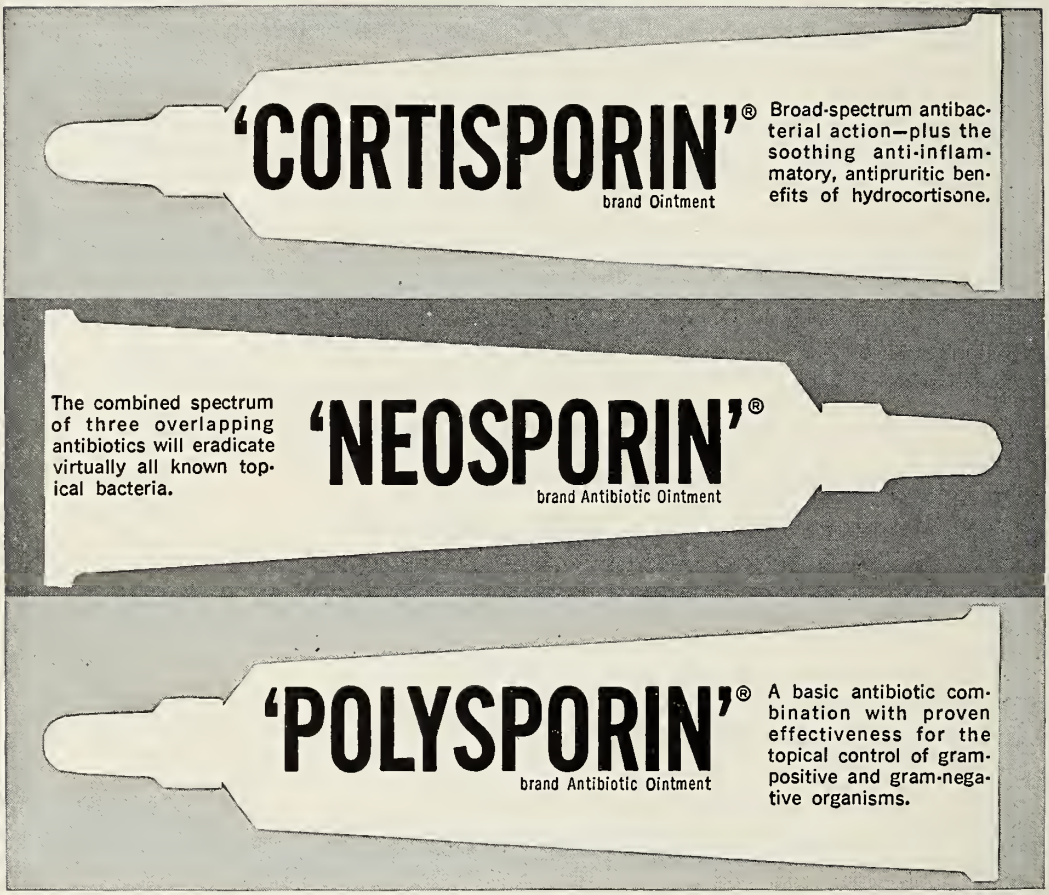
Technical Exhibits

(Listed by Booth Number)

Booth No.	Exhibitor
1	W. B. Saunders Company
2	Hack Shoe Company
3	Procter & Gamble Company
4	Procter & Gamble Company
5	R. J. Reynolds Tobacco Company
6	Medical Arts Supply Company
7	Encyclopaedia Britannica
8	Westwood Pharmaceuticals
9	Carnation Company
10	Holland-Rantos Company, Inc.
11	Burroughs-Wellcome & Co., Inc.
12	W-T-S Pharmaceuticals
13	Randolph Surgical Supply Company
14	Armour Pharmaceutical Company
15	Pacific Medical Equipment Company
16	Roche Laboratories
17	Pfizer Laboratories
18	Julius Schmid, Inc.
19	White Laboratories
20	H. J. Heinz Company
21	Abbott Laboratories
22	MSMS Life, Health, and Accident Insurance Program
23	Merck Sharp & Dohme
24	Ciba Pharmaceutical Products
25	The Borden Company
26	Geigy Chemical Corporation
27	J. B. Roerig & Company
28	Smith, Kline & French Laboratories
29	Winthrop Laboratories
30	Health Insurance Council
31	Wm. H. Rorer, Inc.
32	Johnson & Johnson
33	Desitin Chemical Company
34	Gerber Products Company
35	Marshall Erdman & Associates
36	Dietene Company
37	A. Kuhlman & Company
38	Marion Laboratories
39	Coreco Research Corporation
40	Ortho Pharmaceutical Corporation
41	Cambridge Instrument Company
42	Michigan Medical Service
43	Michigan Medical Service
44	Hermien Nusbaum & Associates
45	Ross Laboratories
46	Rupp & Bowman Company
47	United States Tobacco Company
48	S. E. Massengill Company
49	Great Books with the Syntopicon
50	Parke, Davis & Company
51	Parke, Davis & Company
52	The Upjohn Company
53	Sandoz Pharmaceuticals
54	S. J. Tutag & Company
55	Borcherdt Company
56	Encyclopedia Americana
57	Eaton Laboratories
58	G. D. Searle & Company
59	Ayerst Laboratories
60	Bristol Laboratories
61	Testagar & Company
62	Wallace Laboratories
63	Warner-Chilcott Laboratories
64	Chicago Pharmacal Company
65	Ferndale Surgical, Inc.
66	The Stuart Company
67	Ferndale Laboratories, Inc.
68	Cameron Surgical Instruments Company
69	Dictaphone Corporation
70	Dictaphone Corporation
71	Knoll Pharmaceutical Company
72	Medco Products Company
73	A. S. Aloe Company
74	Strasenburgh Laboratories
75	Lloyd Brothers, Inc.
76	Warren-Teed Products Company
77	Astra Pharmaceutical Products
78	J. B. Lippincott Company
79	U. S. Vitamin & Pharmaceutical Corporation
80	Thomas A. Edison Industries, Voicewriter Division
81	Baker Laboratories
82	A. H. Robins Company
83	Coca-Cola Company
84	Professional Management
85	G. A. Ingram Company
86	G. A. Ingram Company
87	Maico Hearing Service
88	Michigan Bell Telephone Company
89	Lederle Laboratories
90	Mead Johnson Laboratories
91	Eli Lilly & Company
92	Eli Lilly & Company
93	E. R. Squibb & Sons
94	Medical Protective Company
95	P. Lorillard Company


"[Banthīne®] . . . effectively inhibits motility of the gastrointestinal and genitourinary tracts. . . . [Pro-Banthīne] is somewhat more potent. . . ."
"The value of Banthīne . . . can be considered established. . . . Pro-Banthīne is a more potent cholinergic blocking agent . . . . the incidence of untoward reactions is less."
"[Banthīne]. Extraordinarily effective. . . . Prefer even newer Pro-Banthīne. . . ."
"...diminishes gastric secretion and reduces gastric and intestinal motility. . . . less liable than atropine to produce dryness of the mouth. . . ."
"The basal gastric secretion of duodenal ulcer patients may be significantly reduced . . . . The pain associated with hypermotility may be promptly relieved. . . ."
"[Banthīne] . . . has sufficiently selective action . . . to recommend its use as an adjuvant agent. . . . [Pro-Banthīne] cause[s] fewer side effects."
". . . its effect is 2 to 5 times greater than Banthīne and side effects are reduced or absent."
"Pro-Banthīne may also relieve pain by its effect on the sympathetic nervous system. It depresses gastric secretion and motility which in turn diminishes pancreatic output."
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Research in the Service of Medicine

'B. W. & Co.' 'Sporin' Ointments rarely sensitize . . . give decisive bactericidal action for most every topical indication



Contents per Gm.	'Polysporin'®	'Neosporin'®	'Cortisporin'®
'Aerosporin'® brand Polymyxin B Sulfate	10,000 Units	5,000 Units	5,000 Units
Zinc Bacitracin	500 Units	400 Units	400 Units
Neomycin Sulfate	—	5 mg.	5 mg.
Hydrocortisone	—	—	10 mg.
Supplied:	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of ½ oz. and ⅛ oz. (with ophthalmic tip)

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

Say you saw it in the Journal of the Michigan State Medical Society

New AMA President Interned in Michigan

Michigan claims some credit in the outstanding medical career of George M. Fister, M.D., the new president of the American Medical Association.

Doctor Fister interned at the Henry Ford Hospital in Detroit after he was graduated from Rush Medical College in Chicago in 1918.

The new president was installed June 26 in an impressive ceremony at the annual AMA meeting in Chicago.

Doctor Fister previously served as a member of AMA's House of Delegates and Board of Trustees. He was Utah's delegate to the House from 1949 until 1957, when he was named to the Board. He was chairman of the AMA Council on Legislative Activities while on the Board.

He is a past president of the Utah State Medical Association and the Weber County, Utah, Medical Society, and is a founder and former president of the Ogden Surgical Society.

A native of Logan, Utah, Dr. Fister was graduated from Utah State Agricultural College, and then taught mathematics at Weber College in Ogden during the 1913-14 school year.

He entered Rush Medical College and received his M.D. degree in 1918. He interned at Henry Ford Hospital and was in general practice for four years in Brigham City, Utah.

He then returned to the University of Chicago for special study in urology, and did postgraduate work in London and Vienna before beginning full-time specialty practice in Ogden in 1928.

A past president of the Western Section of the American Urological Association, he serves as a clinical lecturer in urology at the University of Utah College of Medicine. He formerly was on the board of trustees of the Utah State Agricultural College, and is now a member of the board of regents of the University of Utah.



More Seat Belts Used

Doctors of Michigan and the nation are pleased with the reports about the increase in automobile seat belts.

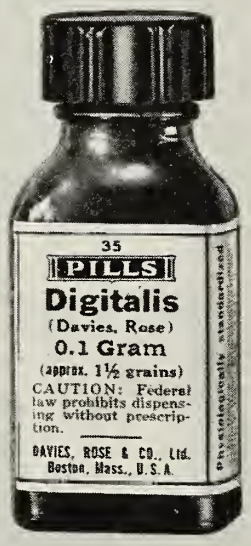
More than two million automobiles were equipped with seat belts during the past year, twice as many as the one million cars equipped with the belts in all the prior years.

Nearly 100 lives were saved as a result of the past year's seat belt installations alone, it was pointed out at a press conference in Chicago. Results of the public information campaign started a year ago by the American Medical Association, the National Safety Council and the U. S. Public Health Service to encourage the installation and use of seat belts were outlined at the conference.

If the trend which has been set in motion continues, there will be an additional two and one-half million seat belt installations in 1962—which would mean an additional 350-400 lives saved this year, said

Digitalis

in its completeness



Each pill is
equivalent to
one USP Digitalis Unit

Physiologically Standardized
therefore always
dependable.

Clinical samples sent to physicians upon request.

Davies, Rose & Co., Ltd.
Boston, 18, Mass.

Howard Pyle, National Safety Council president.

The June 1962 AMA House of Delegates adopted a resolution, introduced by the Michigan delegates, urging that seat belts be made standard equipment on all autos.

CARE, Medico Merge

Two large, respected voluntary agencies concerned with international assistance, CARE and Medico have merged.

The reasons for this merger are the same-increased efficiency, lower administrative costs and expanded services.

CARE was founded in November, 1945, as the Cooperative for American Remittances to Europe to meet the immediate needs of European nations shattered by war. The volume of aid it has given during this period has been around a half-billion dollars.

As conditions improved in Europe, CARE terminated its services in many European nations and started programs in the developing nations of Asia, the Middle East, Latin America and Africa. Services are now given in thirty-two nations.

Medico, founded in 1958 by the late Dr. Tom Dooley and Dr. Peter Comanduras, was organized to establish hospitals and provide American physicians and personnel to staff them in newly developing areas.

Medico is undertaking or organizing seventeen projects in remote villages in jungle and mountain areas of Laos, Kenja, Cambodia, Vietnam, Malaya, Afghanistan and Haiti. In each instance, the projects are undertaken at the invitation of the host government.

APHA Meet Set

The American Public Health Association annual meeting at Miami Beach, October 15-19, will focus on "The Role of Health Today in Social and Economic Development." Sixteen other groups will meet at the same time.

Free Care for Poor

Rather than submit to new regulations imposed by the Knox (Missouri) County division of Public Welfare restricting payments for certain medical services and requiring more detailed records for services rendered, two Bloomfield, Nebraska, physicians have decided to treat their welfare patients free. Drs. R. H. Kohtz and D. J. Nagengast wrote Knox County Welfare Director Joseph Dobry: "We will not be dictated to by any government agency or by any layman heading such an agency as to how or when or where we

(Continued on Page 1030)

New from SAUNDERS

Just Ready! **Kline & Lehmann —**

Handbook of Psychiatric Treatment in Medical Practice

A Storehouse of Practical Advice for the Nonpsychiatrist on Handling the Psychiatric Patient! In simple everyday language, this new book tells you why it is often preferable for the average psychiatric patient to be treated by his family doctor rather than by a psychiatrist. The authors tell you when to refer a patient; which patients you should **not** treat (*arsonists, addicts, homicidal patients, exhibitionists*) and why. Here is only a sample of the problems for which you'll find satisfying answers: *How much psychiatry does the medical practitioner need to know?* Which neurotics should you treat? *What is the prognosis for psychiatric patients?* Do you have time to do psychotherapy? *What are the factors in selecting a psychopharmaceutical?* What are the stigmata of impending suicide? *How to diagnose anxiety?* A special 12-page section lists dosage schedules for all useful psychopharmaceuticals.

By NATHAN S. KLINE, M.D., F.A.C.P., Rockland State Hospital, Orangeburg, N.Y.; Department of Psychiatry, Columbia University College of Physicians and Surgeons; and HEINZ LEHMANN, M.D., Verdun Protestant Hospital, Montreal; Department of Psychiatry, McGill University Faculty of Medicine. About 114 pages, 6"x9¼". About $3.50. *New—Just Ready!*

Just Published! **Finneson —**

Diagnosis and Management of Pain Syndromes

A Concise and Well Illustrated Guide to Handling Those Pain Syndromes You Meet in Daily Practice! For each painful sensation — ranging from *headache* to *intractable pain due to cancer*— the author describes location and nature, differential diagnosis, pathophysiology and management. Drug therapy, physical therapy, major and minor surgery are all covered. Dr. Finneson begins with a comprehensive discussion of the anatomic and physiologic nature of pain, covering both its physical and psychologic effects. Effective management is then described and illustrated for such specific problems as: *Facial pain—Low-back pain and sciatica—Visceral pain of the chest and abdomen—Neck pain and cervicobrachial neuralgia — Pelvic and perineal pain—Peripheral vascular pain— Causalgia, painful scars and post-infection neuralgia.* A few of the many practical discussions include: Toxic reactions to drugs—Surgery for trigeminal neuralgia —Traction for acute cervical pain—Treatment of phantom limb pain—etc.

By BERNARD E. FINNESON, M.D., F.A.C.S., Neurosurgeon, The Episcopal Hospital, Philadelphia. 261 pages, 6½"x9¾", 166 illustrations. $8.50 *New—Just Published!*

New (2nd) Edition! **By Paul Williamson, M.D.**

Office Procedures

Hundreds of Common Sense Procedures to Help Make Diagnosis Easier but More Accurate, to Help Make Treatment Simpler but More Effective! This time-saving book gives you precise descriptions on how to perform such procedures as cauterization of the cervix, proctoscopy, hearing tests, repair of wounds, office anesthesia. Dr. Williamson tells you how to use the instruments and equipment you have to best advantage and how to improvise when necessary with common articles like hairpins, paper clips, and coat hangers. For this edition new sections are incorporated on *office psychiatry* and on *management of geriatric patients.* Among the score of other important changes are: *a new section on examination of the newborn* —new material on radiologic examination of fractures of the limbs—*new office tests for hiatal hernia of the esophagus* — expansion of the section on physical therapy — *coverage of disorders of the breast in the section on minor surgery.*

By PAUL WILLIAMSON, M.D. Illustrated by ANN WILLIAMSON. About 460 pages, 8"x10¾", 1090 illustrations. About $13.50. *New (2nd) Edition—Ready September!*

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Please send when ready and bill me:

- ☐ Kline & Lehmann's Psychiatric Treatment in Medical Practice, about $3.50
- ☐ Finneson's Diagnosis & Management of Pain Syndromes, $8.50
- ☐ Williamson's Office Procedures, about $13.50

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Free Care for Poor

(Continued from Page 1028)

may render services to our patients. We have always given these patients the same consideration all our other patients receive. But under your restrictions we would be forced to give the patients inferior service. This we refuse to do."

Cooley Will Succeed Wiprud

Theodore Wiprud, executive secretary of the Medical Society of the District of Columbia for the past 24 years, will retire July 1. His successor will be George W. Cooley, presently serving as secretary of the American Medical Association's Council on Medical Service.

Mr. Wiprud came to Washington in 1938, after nine years as executive secretary of the Medical Society of Milwaukee County, Wisconsin.

Mr. Colley came to AMA in 1945 as a consultant in prepayment plans for the Council on Medical Service.

Takes AMA Post

Henry F. Howe, M.D., Cohasset, Massachusetts, is the new director of the American Medical Association's Department of Occupational Health and secretary to the Council on Occupational Health.

Dr. Howe succeeds B. Dixon Holland, M.D., in the AMA post.

A member of the AMA's House of Delegates since 1956, Dr. Howe is a past president of the Norfolk South District Medical Society and has served on the council of the Massachusetts Medical Society since 1950.

1000th Film Review Published

The AMA program of disseminating information on new medical motion pictures reached a milestone recently with the publication in the *AMA Journal* of the 1,000th film review. Medical film reviews, valuable to medical educators planning for state medical society meetings and hospital staff conferences, have been appearing regularly in *The Journal* since February, 1946.

MSMS Hosts SAMA Breakfast

Michigan leaders of the two SAMA chapters in the state were guests of MSMS at a "Michigan SAMA Breakfast" during the 1962 SAMA annual convention in Washington, D. C. Hosting the students were Wm. J. Burns, MSMS Executive Director, and Mrs. Burns.

Receives Coller Award

The Eleventh Annual Symposium of Trauma and Nutrition, sponsored by the Regional Committees on Trauma and Nutrition and the Michigan State Chapter of the American College of Surgeons, held in Ann Arbor recently, drew over 200 guests. About 150 were present at the award presentations and evening dinner at Barton Hills Country Club.

All nineteen papers presented at the scientific session were given by residents in surgery undergoing training in hospitals throughout the State of Michigan. Original research was emphasized.

The winner of the first prize and the Frederick A. Coller Award was Albert Macksood, M.D., Detroit. He was sponsored by Roger Smith, M.D. The Coller award is a scroll awarded the most meritorious presentation of the day and named for the famed Professor Emeritus of Surgery of the University of Michigan Medical School. Doctor Macksood's winning paper was entitled "The Maintenance by Cold Perfusion of the Viability of the Devascularized Canine Kidney."

Second prize was won by John Tipton, M.D., Ann Arbor, who discussed "The Effect of 5-Fluoruracil on the Adrenalectomized Dog." He was sponsored by William Regan, M.D.

Third prize was won by James Kivlahan, M.D., Eloise. The paper was entitled "Complications of Blood Transfusions: A Clinical and Experimental Study." He was sponsored by Wayne Glas, M.D.

Invite Doctors, Wives to Exhibit Art Work

An exhibit of art work by Michigan doctors and their wives will take place September 25, 26 and 27th in the Shelby Room of the Pick-Fort Shelby Hotel. The exhibit will be held in conjunction with the Annual Session of the Michigan State Medical Society in Detroit.

A similar exhibit last year proved to be a great success and it is hoped that this year's show will stimulate an even larger response among the doctor/wife artists in Michigan.

The procedure for entering the exhibit is an easy one—all that interested members must do is to take their own original art work with them to Detroit for the Annual Session and register it with the Auxiliary committee between 9 a.m. and noon September 25.

Robert Thom, noted artist of Birmingham, will be chairman of the judges committee.

All work must be completely original and entirely by the artist submitting it. Each entrant is limited to four entries which may be in one class or any combination of classes. Oil paintings must be suitably framed. Watercolors, drawings and prints must be matted and/or framed. All framed entries must be equipped with eyelets and wire suitable for hanging. Entries must be brought in by hand.

Usual care will be exercised in handling all entries, but we cannot assume liability for accidents in handling, breakage or loss by

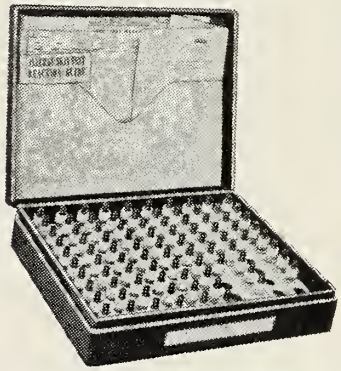


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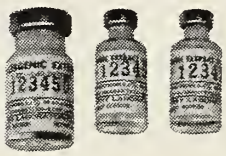
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theft. Entries will not be insured. Insurance, if desired, should be carried by the exhibitor.

Entries will be received Tuesday, September 25 from 9 a.m. to 12 noon in the Shelby Room of the Pick-Fort Shelby Hotel.

The exhibit will open Tuesday, September 25 at 3 p.m.

Awards will be given in the following divisions:

Class I. Paintings, including oil, encaustic lacquer, polymer, etc.

Class II. Painting, including watercolor, casein, tempera, gouache.

Class III. Sculpture, including wood, stone, ceramic, metal.

Class IV. Ceramics.

Class V. Drawing and graphic art, including all print techniques.

Class VI. Three dimensional design: weaving.

Advance registration is not necessary, but would be very helpful to the committee in planning for adequate display space. The following registration form may be placed in an envelope and mailed to the committee chairman.

Any additional information may be secured from the Chairman of the Art Exhibit: Mrs. Joseph L. Whelan, 1360 Oxford Road, Grosse Pointe 36, Michigan.

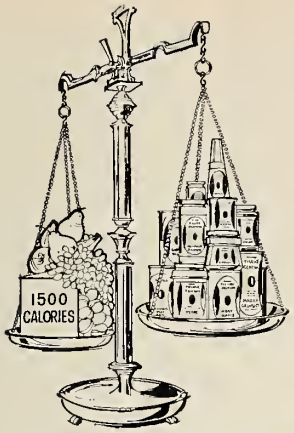
Heads Home Care Program

Leslie F. Harcus has joined the staff of the Michigan Health Council as director of home care. He will assist in coordinating the efforts of voluntary and official health organizations of Michigan communities interested in making home care services available to patients in local hospitals. A grant from the McGregor Fund of Detroit gave the Health Council the opportunity to launch this important new program. Mr. Harcus was associated with Michigan State University for the past nine years.

New Respiratory Journal

Concurrent with expanded activity, the Michigan Tuberculosis and Respiratory Disease Association is circulating a new quarterly publication, "Clinical Notes on Respiratory Diseases." The publication is produced jointly by the National Tuberculosis Association and the American Thoracic Society. Physicians not receiving Clinical Notes may obtain copies from the Michigan Tuberculosis and Respiratory Disease Association, 403 Seymour, Lansing 14.

(Continued on Page 1036)



A new answer to one of America's leading health problems

60 DELICIOUS FOODS THAT MAKE WEIGHT CONTROL EASIER!

Here is a practical and down-to-earth method to help overcome obesity, the nation's No. 1 diet problem—and prime stealer of doctor's consultation time. Now a new group of 60 delicious Mott's Figure Control Food products uses the best of nutrition knowledge to create quality dishes, lower in calories by an average of 50%. Indicated calorie savings can be made pleasantly and accurately while eating normal-size portions by using these calorie-controlled foods in place of higher calorie dishes. Protein, vitamin and mineral food values are retained.

Low carbohydrate, low fat: Fats are largely extracted from meats and poultry in a way that cannot be done at home. Sauces and dressings are prepared with a high proportion of non-fat milk solids, vegetable colloids, all are delectably "natural" and tempting in flavor. Fruits, juices, desserts and sauces are prepared where indicated with non-caloric sweeteners—natural fruit values are intact, extra sugars reduced. The carbohydrate, protein and fat content appears on all labels along with the calorie count. Useful for diabetic diets, too.

Easy medical tool for doctors: Less need for drugs, no possible dangerous side effects, not even temporary dislocation of meal patterns. Figure Control Foods include: Soups, Meats & Poultry, Popular Sauces, Salad Dressings, Preserves, Syrup, Fruits, Drinks, Desserts and Sweeteners.

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	Quantity	Figure Control Calories	"Regular" Food Calories
Apple-Grape Drink	½ cup	20	52
Five-Fruit Juice Breakfast Drink	½ cup	20	52
Braised Beef and Vegetables	6½ oz.	184	380
Meat Balls in Brown Gravy	3½ oz.	84	280
Chopped Chicken Livers	1 oz.	31	100
Chicken a la King	3 oz.	72	230
French Style Dressing	1 tbsp.	10½	60
Brown Gravy	1 tbsp.	7	21

	Quantity	Figure Control Calories	"Regular" Food Calories
Applesauce	½ cup	48	90
Fruit Cocktail	½ cup	44	90
Cherry Pie Filling	1 oz.	20	60
Chocolate Topping	1 tbsp.	8	63
Preserves (Peach, Strawberry)	1 tbsp.	9	55
"Maplette" Syrup	1 tbsp.	9	55
Liquid or Powder Sweetener	(to equal 1 tbsp. of sugar)	0	16



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Medical Assistants Come to Michigan for National Convention

The American Association of Medical Assistants will come to Michigan for its Sixth Annual Meeting September 26 at the Statler Hilton Hotel, Detroit. The meeting will continue through September 30.

Official business will be conducted by the House of Delegates in sessions on September 26 and 27.

George E. Fister, M.D., President of the American Medical Association, keynote speaker for the convention, will address the group Saturday evening, September 30.

General theme for the meeting will be "Highways to Health."

The program September 29 will include a panel discussion on "Evaluation of a Medical Assistant" with panelists Nelson Young, Allison Skaggs, and Robert P. Revenaugh. Irene Place, M.D., will lecture on "Work Simplification." Luncheon address will be by J. H. Ahronheim, M.D., Jackson, on "Medical Milestones." The colorful Pagent of Flags will highlight the luncheon honoring all State Presidents. The afternoon session will headline such outstanding men as Homer Stryker, M.D., Reid Dingman, M.D., Harold Fulton, M.D., Richard Lemmer, M.D., and Atty. Jepka Schureman.

A workshop designed to offer help, suggestions and new ideas for the medical assistant in her job and in her society will be held Saturday morning September 30. Joan Barlow, R.N., will highlight this program with her "Helpful Hints." A panel discussion on the certification program now being developed for Medical Assistants will complete the educational sessions.

With the cooperation of the Michigan Department of Health and the Michigan Tuberculosis and Respiratory Association, certain diagnostic tests will be made available to AAMA members under an "Operation Health" program. This is a new venture at this convention. All members are urged to utilize the opportunity for a partial checkup of their own physical condition as well as obtaining information on some of the more recent forms of diagnostic testing.

Ample opportunity to view exhibits at both this meeting and the MSMS meeting will be given. Numerous social events have been arranged. For the benefit of early arrivals several tours to points of interest in the Detroit area, such as Cranbrook, Greenfield Village and Ford Assembly plant, have been arranged. For vacationers, a post-convention tour to Montreal and Quebec City, Canada, will be available at nominal cost.

Information regarding registration, fees, et cetera, may be obtained by contacting: Mrs. Stella Thurnau, AAMA Executive Secretary, 510 N. Dearborn, Chicago 10.

Health Council Busy With Varied Activities

The six-month report of the Michigan Health Council describes many activities of interest to MSMS members, especially the work of the M.D. Placement Service.

In its ninth year of operation, the M.D. Placement Service has been responsible, in part, for the placement of 472 doctors of medicine. In the first six months of 1962, 18 M.D.'s were placed.

An exhibit for the Placement Service is being prepared. Primarily, it will be displayed on heavy traffic areas of medical and dental schools. The need for medical and dental services is outlined in various areas of the State. The doctor-patient ratio also is indicated in these areas.

At the present time, all doctors of medicine who established practices between January 1, 1961 to January 1, 1962, are being surveyed to determine how and why they selected a particular community.

In other areas of activity, the Michigan Health Council has continued the television series, "Decisions," which is presented jointly with the Michigan Association of the Professions. Recent programs have included such topics as School Health Councils, the Home Care Program, Dental Associates, the pamphlet "Health Care, U.S.A.," and Occupational Therapy. The program is presented on WJBK-TV, Detroit.

The Health Careers Program continues to be a major activity of the Health Council. The career exhibit was on almost constant display at Michigan public and parochial junior and senior high schools. In addition, the Staff distributed thousands of career booklets, gave talks to students and counselors, and showed health career films to students throughout the State. The Woman's Auxiliary to the Ingham County Medical Society was especially helpful and reached more than 17,000 students in 21 schools in the County with the exhibit and career materials.

The 1962 State Conference will be held November

28-29 at the Michigan Union in Ann Arbor. Home Care will be the theme of the Conference at which professional and community health leaders will meet to discuss the development of additional organized home care programs throughout the State.

National Auxiliary Leader Suggests Service Projects

Many community service projects were recommended for local and state woman's auxiliaries by the new president of the Woman's Auxiliary to the American Medical Association in her inaugural address at Chicago.

Mrs. William G. Thuss, Birmingham, Ala., urged that members support medical education, promotion of safety education for all age groups, mental health, physical fitness programs in schools, campaigns against quackery, recruitment of outstanding young people into medical careers, rural health and international health activities.

Mrs. Thuss said that in its first 40 years the Auxiliary has "become full partners and allies of our husbands."

Mrs. Thuss succeeds Mrs. Harlan English, Danville, Ill. The new president-elect is Mrs. C. Rodney Stoltz, Watertown, S. D.

An auxiliary check for $244,172 was presented to the AMA Education and Research Foundation for the nation's 86 medical schools.

Dr. Leonard Larson, then AMA president, in his speech, praised members for their work in "fighting to preserve the finest form of medicine in the world today."

Dr. Edward R. Annis, chairman, AMA Speaker's Bureau, Miami, said it was up to every doctor's wife to remind her husband that he, as a citizen, has a "personal responsibility to spread the true facts about the profession."

Stresses Role of Doctor In Selection of Drugs

"The ultimate decision as to whether a particular drug will have a therapeutic effect on an individual patient should be that of his physician and not a government bureau."

So states Austin Smith, M.D., president of the Pharmaceutical Manufacturers Association.

Dr. Austin Smith said S. 1552 (the Kefauver drug bill) now pending before the Senate Judiciary Committee will open the way to unnecessary government inspection of company records, discourage incentive and medical progress, and restrict the physician's freedom to prescribe exactly the right drug for his patient.

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Dr. Smith deplores what he called the confusing state of affairs with respect to proposed drug legislation. Three major drug control bills have been introduced into Congress, one in the Senate and two in the House. Committee jurisdiction is unclear, and it is not known exactly how the administration eventually will stand on each of these bills.

A substantial part of the activity, Dr. Smith said, has been "conducted with an eye toward headlines to prove preconceived notions and cater to the emotions."

Dermatological Society Elects

The Detroit Dermatological Society has elected its officers for 1962-63. Herschel S. Zackheim, M.D., Royal Oak, was elected President-Elect; Harold E. Usndek, M.D., Detroit, Secretary-Treasurer, and Harold Plotnick, M.D., Detroit, Recorder. John N. Grekin, M.D., Detroit, is the new president.

Allergy Society Elects

The Michigan Allergy Society will be led during 1962-63 by Hilda M. Hensel, M.D., Monroe, as president. Other officers include James A. McLean, M.D., Ann Arbor, secretary, and John H. Burger, M.D., Birmingham, treasurer.

Israel Wiener, M.D., Detroit, was chosen as president-elect at the recent society election.



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Supreme Court Ruling Affects Hospitals

Hospitals and utilities are affected by the Michigan Supreme Court decision in the two-year-old case of Local 644 and Council 77 of the State, County and municipal Workers and Julian Havilak against Oakwood Hospital, defendant and appellant.

Six participating justices representing both parties affirmed a lower court finding for the union, deciding Sec. 13 of the Labor Mediation Act as amended means just what it says when it says:

"The parties to a hospital or public utilities dispute shall be obligated under this act to bargain collectively at all times."

Defense attorneys argued that the union's jurisdiction was confined to government employees and that Oakwood is neither a public nor a governmental employer, and also that the law was so "arbitrary and unreasonable" as to be unconstitutional.

An opinion prepared by Justice Kavanaugh and endorsed by Justices Black and Smith observed caustically that "Defendant attempts by semantic gymnastics to interpret words, phrases and clauses of the act to show that the language is not broad enough to apply to recognition disputes involving wage, hours and conditions of employment. We find no such restrictive meaning.

GOP Justices Carr, Dethmers and Kelley concurred except on one small $327.50 question—who should pay for a court-ordered union representation election. The Democratic opinion upheld the lower court's decision that the hospital was responsible for stirring up the whole legal dispute and shall bear the entire $650 cost of the vote, the Republican concurrent opinion wanted it shared 50-50.

Justices Adams and Souris did not participate. As Attorney General, Adams entered the case as an intervenor after the state labor mediation board and a special commission appointed by the governor failed to produce a settlement.

The court-ordered election established the union as collecting bargaining representative of the hospitals unskilled, nonclerical workers. A union spokesman said today he will proceed immediately, on the basis of the high court ruling, to set up a schedule of contract talks.

The court held in part: ". . . We are not persuaded that the legislature exceeded its authority . . . the power of a legislative body to classify for purposes of regulation under the general police power is commonly recognized. . . . Bearing in mind, the object to be obtained, we do not think it can be said that the means adopted by the legislative act are arbitrary or unreasonable to such an extent as to violate constitutional guarantees."



LEGAL OPINION 1039

MICHIGAN DEPARTMENT OF HEALTH
ALBERT E. HEUSTIS M.D., State Health Commissioner

Research Report

In addition to its regular programs, the Michigan Department of Health engages in various research and study projects which bear upon different aspects of public health. An example of such continuing project is the Michigan Maternal Mortality Study which is conducted in cooperation with the Michigan State Medical Society. This study begun in 1949 provides essential data regarding every maternal death in Michigan in the interests of further reducing the maternal mortality rate.

Some other research and study projects of interest to physicians include the following.

Glaucoma Study

This project begun in May of this year is a study of glaucoma casefinding among relatives of persons blind from glaucoma and is conducted under a special grant from the Neurological and Sensory Diseases Branch of the Public Health Service. The study is essentially a fact finding program designed to help determine: (1) whether the prevalence of chronic glaucoma is greater in the blood relatives of persons blind from glaucoma than in the general population; (2) how effective a single tonometer reading is in detecting glaucoma in these families; and (3) the occurrence of other eye conditions among relatives of persons blind from glaucoma.

Records maintained by the Division of Services for the Blind, Michigan Department of Social Welfare are being searched and a list made of all persons blind from glaucoma residing in the following counties: Ingham, Clinton, Eaton, Livingston, and Shiawassee. A second list of persons blind from glaucoma in these counties is being obtained from local ophthalmologists. These persons will be interviewed to obtain names and addresses of parents, siblings, and children. Such family members will be located when possible and requested to participate in the project. Information obtained from these persons will include age, race, sex, relationship to the blind person, ophthalmological diagnoses, and findings of ophthalmological examinations including tonometer readings, provocative tests, fundus (dilating), and visual acuity, with or without glasses. The Division of Services for the Blind will assist in editing the medical records on those cases being served by them.

This study is being conducted by the Division of Tuberculosis and Adult Health.

Urokinase

Another project being conducted on a grant from the National Institute of Health is research on urokinase a substance prepared from human urine which may prove effective in the dissolution of intravascular clots and emboli.

It is proposed to make available appreciable quantities of safe, pure urokinase for use by research workers in other laboratories for clinical purposes. In this way it is hoped that the effectiveness of urokinase as a therapeutic agent in the treatment of various diseases resulting in blood clots and emboli may be determined.

This project is being conducted by the Division of Laboratories.

Fibrinolysin from Placentas

Another continuing research project of the Division of Laboratories, conducted on a grant from the Public Health Service, is designed to isolate fibrinolysin from placental blood. Blood recovered from placentas has been used for a number of years by the department in the production of gamma globulin and serum albumin. However, up to now there has been no way to salvage fibrinolysin from placentas which are delivered to the health department laboratories from 64 Michigan hospitals.

Because there is not enough used venous blood available from blood banks to provide an adequate source of fibrinolysin, a method of salvaging placental blood would be most valuable. Although the use of fibrinolysin is still in the experimental stages, it is hoped that it may be effective in dissolving clots in blood vessels, cleaning infected wounds, and in treating burned tissue.

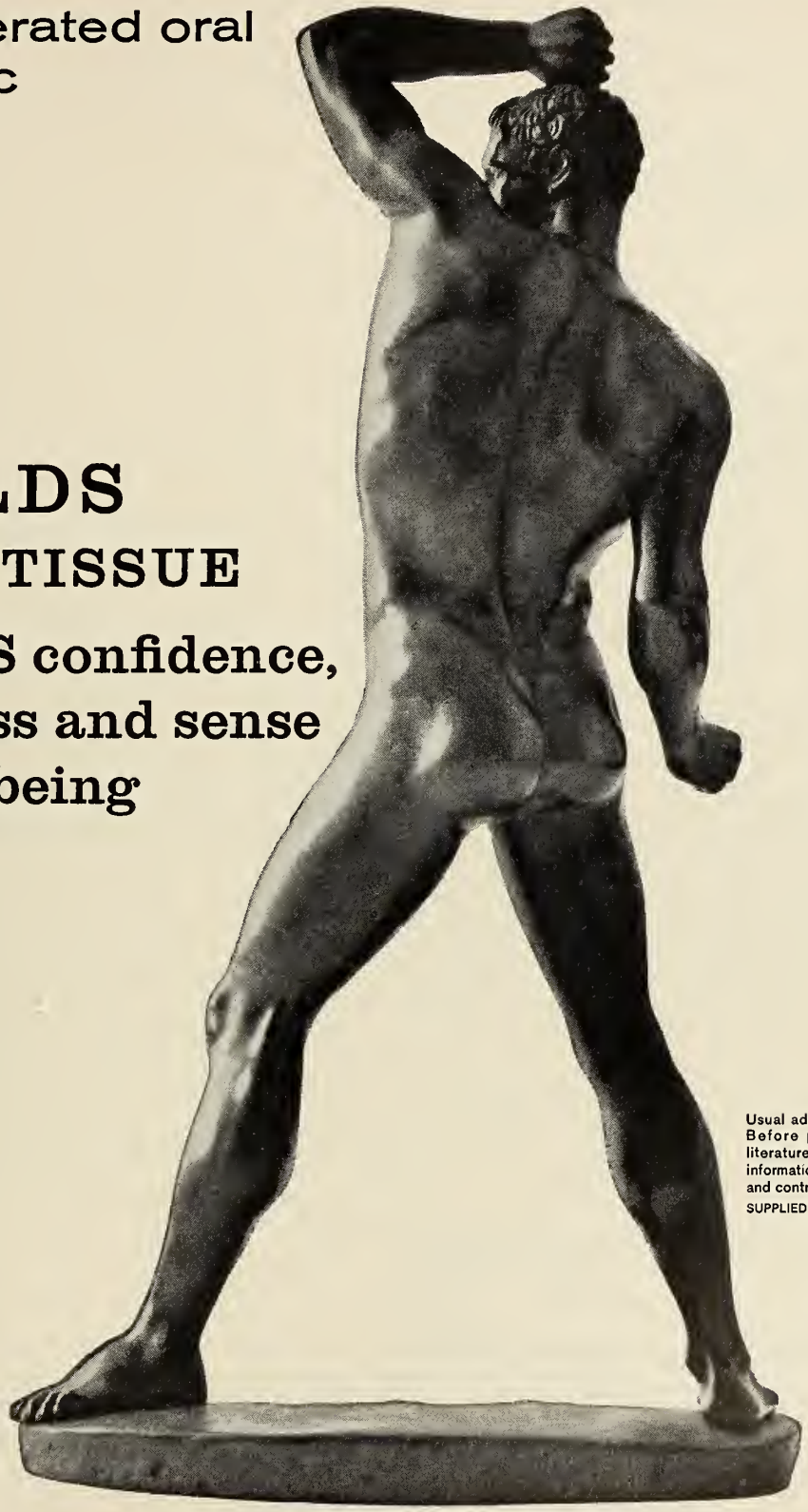
(Continued on Page 1042)

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(Continued from Page 1040)

Improved AHG

Another laboratory research study, this one conducted on a special grant from the American Red Cross, will attempt to increase the potency of our present antihemophilic globulin. Today only about 20 per cent of the antihemophilic factor is recovered. By using special techniques involving newer and faster methods of production, health department researchers hope to recover as much as 70 to 80 per cent of this vital factor. In the current product while the antihemophilic factor is present, it is combined with factors such as fibrinogen.

If it is possible to isolate the antihemophilic factor, purify it, and establish a uniform potency from batch to batch, it is hoped that the present antihemophilic globulin will be vastly improved and treatment of hemophilia made more successful.

Dental Research

The Division of Dentistry is involved in two major research projects for 1962. One involves testing the effectiveness of three fluoride solutions currently used in topical application to childrens' teeth to prevent tooth decay. Several hundred children will participate in the tests. It is hoped to determine which of the three solutions does the best job of preventing tooth decay.

The second study involves an evaluation of methods of motivating children to visit their dentists regularly. Three methods will be studied to determine which is the most effective.

1. Dental surveys with referrals to the child's dentist.

2. Dental health education programs in which dental consultants work with teachers to show children how to care for their teeth.

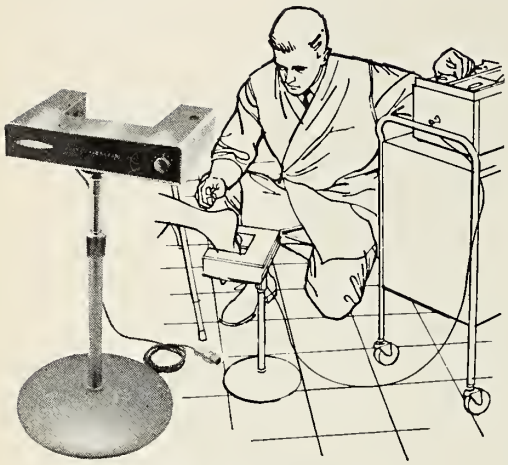
3. Distribution of cards to motivate children to see their dentists for examination.

This study is expected to provide the basis for a uniform program in Michigan schools to encourage children to give their teeth the best possible care.

AMA BACKS FUNDS FOR SCHOOLS

The American Medical Association has urged Congress to pass stalled legislation providing federal grants for construction of medical school facilities.

A bill which would provide federal funds for construction of new medical schools and improvement of existing schools has been approved by the House Commerce Committee and is pending before the Rules Committee.



a reliable 5-minute test for thyroid dysfunction . . .

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Accuracy and reliability of the Achilles tendon reflex have been reported by a group using the Burdick FM-1 at New York University Medical Center. They point out this test is unaffected by most of the conditions which often invalidate other diagnostic procedures.

Other reports suggest this is the preferred test for screening thyroid patients and following their progress under medication.

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PG Enrollment Grows Thru Michigan Medical Meetings

A record number of 1,148 practicing physicians from throughout Michigan attended postgraduate courses this past academic year at the University of Michigan Medical Center. John M. Sheldon, M.D., director of the program, reports doctors took one or more of the 39 different subjects.

Prior to this year, the largest enrollment occurred in 1959-60 when 830 doctors participated in on-campus courses.

Some courses doubled in enrollment, such as "Electrocardiographic Diagnosis" and "Recent Advances in Therapeutics." A half-day course on "Cardiac Resuscitation" was re-run three additional times because of the unprecidented enrollments.

* * *

HELPS WAYNE LIBRARY—The Parke, Davis & Company has contributed current and back issues of 39 medical journals to the library of Wayne State University's College of Medicine. They will be made available to physicians and medical researchers throughout Michigan through authorized organizations.

Grace and Harper Hospitals also have donated copies of their publications so the WSU library may "trade" them to other hospitals and medical organizations for similar publications.

* * *

LIFE SAVER—Harper Hospital, Detroit, has installed a refrigerated centrifuge to spin off critically needed components of human blood. Five times faster than the conventional centrifuge used in most hospitals, the refrigerated mechanism separates white cells from red cells in 8 to 10 minutes, rather than the usual hour. The Harper Hospital centrifuge is expected to save patients money, because they will pay only for the part of the blood their conditions require.

* * *

JOINS BLUE SHIELD—Jay N. Mossman, a business division supervisor at Michigan State University, has been appointed finance director of Michigan Medical Service. He fills the post vacated by William R. Wilson, who was simultaneously appointed director of Blue Shield's division of utilization, audit and information.

* * *

NEW CIBA EDITOR—Frederick F. Yonkman, M.D., formerly of Detroit, has been named editor of The CIBA Collection of Medical Illustrations, to succeed the late Dr. Ernst Oppenheimer. The CIBA Collection, when completed, will present an atlas of human anatomy, physiology and disease.

* * *

NEW POSITION—Bennett J. McCarthy, director of the hospital affairs division of Michigan Blue Cross, is now the assistant general manager, a new position. In the new position, Mr. McCarthy will share in key administrative responsibilities.



LIST ACP COURSES—Fifteen postgraduate courses will be presented throughout the country during 1962-63 by the American College of Physicians. Averaging five days in duration, the concentrated courses are part of the ACP's post-graduate program which is aimed at providing practicing physicians with current information on internal medicine and related specialties. Physicians interested may contact Edward C. Rosenow, Jr., M. D., Philadelphia, Pa., Executive Director of The American College of Physicians.

* * *

UNIVERSITY HOSPITAL ELECTS—The medical staff of The University of Michigan Hospital has elected officers for 1962-63. Dorin Hinerman, M. D., has been named chairman of the senior medical staff with H. Marvin Pollard, M. D., vice-chairman and Marion S. DeWeese, M. D., secretary. The junior medical staff elected George Zuidema, M. D. chairman; Thomas P. Haynie, III, M. D., vice-chairman; and Rose H. Parker, M. D., secretary.

* * *

NEW CATALOG—The National Library of Medicine Catalog, 1961, has now been published. Supplementing the 1950-54 and the 1955-59 quinquennial issues and the 1960 issue, it serves together with Index Medicus as a continuation of the Library's bibliographical record begun in 1880 with the publication of the Index-Catalog of the Library of the Surgeon-General's Office.

LEGION HOSPITAL CHANGE—Donald K. Hibbs, M. D., Battle Creek, is the new medical director of the American Legion Hospital at Battle Creek. Dr. Hibbs, in practice 33 years, is a former Navy medical officer.

* * *

REASSIGNED—Morris C. Thomas, M. D., director of the Dearborn Veterans Administration hospital, has been reassigned as director of the Syracuse, N. Y., VA hospital. A graduate of the Indiana University Medical School in 1930, he had been director at Dearborn since July 26, 1959.

* * *

MORE PLACEMENTS—Recent placements by the M.D. Placement Service of the Michigan Health Council have included the following: John Boet, M. D. (Grand Rapids); John E. Dwyer, M. D. (Bay City); Paul D. Radgens, M. D. (Detroit); J. D. Decker, M. D. (Grant); Roscoe V. Stuber, M. D. (Howell); and James M. Barnett, M. D. (Muskegon Heights).

* * *

NATIONAL LEADER—Jerome W. Conn, M. D., Ann Arbor, is the new president of the American Diabetes Association. The Association basically is a professional society for physicians who treat diabetic patients and do research

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in the field of diabetes. Dr. Conn began research in diabetes in 1935 and has received many awards for his outstanding work in this field, including the ADA Banting Medal.

* * *

JOINT EFFORT—Smith Kline & French Laboratories and General Precision Equipment Corporation have signed an agreement for joint effort in the medical instrumentation field. The new division, to be called Smith Kline Precision Company, will be in Philadelphia.

MEETINGS USA

October

American Academy of Pediatrics, Palmer House, Chicago, Oct. 27-Nov. 1. E. H. Christopherson, M. D., 1801 Hinman Ave., Evanston, Ill., Executive Director.

American Cancer Society, Biltmore Hotel, New York City, Oct. 22-26. Ronald N. Grant, M. D., 521 W. 57th St., New York 19, Director of Professional Education.

American College of Gastroenterology, The Morrison, Chicago, Oct. 28-31. Mr. Daniel Weiss, 33 West 60th St., New York 23, Executive Director.

American College of Surgeons, Clinical Congress, Atlantic City, Oct. 15-19. William E. Adams, M. D., 40 E. Erie St., Chicago 11, Secretary.

American Heart Association, Inc., Sheraton-Cleveland Hotel, Cleveland, Oct. 26-30. Mr. Rome A. Betts, 44 East 23rd St., New York 10, Executive Director.

American Medical Association First National Congress on Mental Illness and Health, American Medical Association, 535 N. Dearborn St., Chicago 10, Oct. 4, 5, 6.

American Medical Writers' Association, Sheraton Park Hotel, Washington, D. C., Oct. 12-23 Mr. John Sargeant, 1211 Cathedral St., Baltimore 1, Local Arrangements Chairman.

American Roentgen Ray Society, Shoreham Hotel, Washington, D. C., Oct. 2-5. C. Allen Good, M. D., Mayo Clinic, Rochester, Minn., Secretary.

American Society of Anesthesiologists Inc., Statler Hilton Hotel, New York City, Oct. 21-26. Mr. John W. Andes, 515 Busse Highway, Park Ridge, Ill., Executive Secretary. Association of Medical Illustrators, Park Shelton Hotel, Detroit, Oct. 1-3. Miss Rose M. Reynolds, University of Nebraska College of Medicine, 42nd and Dewey Ave., Omaha 5, Corresponding Secretary.

Clinical Orthopaedic Society, Inc., Hotel Statler, Detroit, Oct. 4-6. Lyman Smith, M. D., 1186 Dundee Ave., Elgin, Illinois, Secretary-Treasurer.

Indiana State Medical Association, French Lick-Sheraton Hotel, French Lick, Oct. 8-10. Mr. James A. Waggener, 3935 N. Meridian St., Indianapolis 8, Ind., Executive Secretary.

November

American Academy of Ophthalmology and Otolaryngology, Las Vegas, Convention Center, Las Vegas, Nev., Nov. 4-9. W. L. Benedict, M. D., 15 Second St., S. W., Rochester, Minn., Executive Secretary-Treasurer.

American College of Chest Physicians (Interim Session), Ambassador Hotel, Los Angeles, Nov. 24-25. Mr. Murray Kornfield, 112 E. Chestnut St., Chicago, 11, Executive Director.

American College of Gastroenterology, Annual Course in Postgraduate Gastroenterology, Chicago, Nov. 1-3.

American College of Obstetricians and Gynecologists, District V, Sheraton Hotel, Indianapolis, No. 8-10. John D. Gordinier, M. D., Owens Medical Center, Suite F. 4122 Shelbyville, Louisville 7, Ky., Secretary.

American Medical Association, Clinical Meeting, Los Angeles, Nov. 25-28. F. J. L. Blasingame, M. D., 535 N. Dearborn, Chicago 10, Executive Vice-President.

American Medical Women's Association, Ambassador Hotel, Los Angeles, Nov. 29-Dec. 2. Jessie Laird Brodie, M. D., 1790 Broadway, New York 19, N. Y., Executive Director.

MICHIGAN MEDICAL MEETINGS

Michigan State Medical Society House of Delegates, Sheraton-Cadillac Hotel, Detroit, September 23-24-25; Scientific Session, September 26-27-28.

Women's Auxiliary to Michigan State Medical Society, Sheraton-Cadillac Hotel, Detroit, September 25-26-27.

Michigan State Medical Assistants Society, Statler Hilton Hotel, Detroit, September 27.

Genesee County Medical Society—Diabetes Day Program, November 7, Flint, Hurley Hospital.

Michigan Health Council State Conference, Michigan Union, Ann Arbor, November 28-29.

Michigan Tuberculosis and Respiratory Disease Association annual meeting October 25, Pick Durant Hotel, Flint.

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IN MEMORIAM

VICTOR DROOCK, M.D., sixty-nine, Detroit general practitioner since 1919, died June 18, 1962.

A 1916 graduate of the Chicago College of Medicine and Surgery, Doctor Droock served as an Army physician in World War I. He interned at Grace Hospital, Detroit.

VINCENT C. JOHNSON, M.D., fifty-seven, Detroit radiologist, died June 10, 1962.

A graduate of the University of Wisconsin, he was a faculty member at the University of Michigan Medical School before entering private practice in Detroit 18 years ago. He did graduate work at the University of Pennsylvania.

SARKIS K. KESHISHIAN, M.D., seventy-six, Detroit physician since 1918, died May 27, 1962.

A native of Armenia, Doctor Keshishian came to this country in 1909 and was graduated from Loyola University Medical School, Chicago, in 1916. He interned at Harper Hospital, Detroit.

Doctor Keshishian was one of the founders of Highland Park General Hospital. He was a Life Member of the Michigan State Medical Society.

FREDERICK T. MAY, M.D., sixty-two, Detroit physician since 1923, died June 25, 1962.

Doctor May was a graduate of Rush Medical College. He was on the staff of Providence Hospital, Detroit.

LIONEL N. MERRILL, M.D., sixty-eight, retired Detroit and Royal Oak pediatrician, died May 28, 1962, at his home in Naubinway, Michigan.

A 1922 graduate of the University of Michigan, Doctor Merrill interned at Harper Hospital, Detroit and received his postgraduate training in pediatrics at George Washington University, St. Louis. He practiced in Detroit until 1943, when he moved his office to Royal Oak. In 1959, he retired from practice and moved to Naubinway.

Doctor Merrill was on the staffs of Highland Park General and William Beaumont Hospitals and served in the children's clinic at Children's Hospital, Detroit.

E. J. SANGER, M.D., fifty-one, Monroe physician since 1935, died June 22, 1962.

A graduate of George Washington University medical school in 1934, Doctor Sanger served his internship at St. Mary's Hospital, Detroit, and practiced briefly at Lafayette, Indiana, before coming to Monroe. He was a former chief of staff of Mercy Hospital, Monroe, and a former staff member of Monroe General Hospital. He was secretary-treasurer of the Monroe County Medical Society for several years.

GEORGE VAN RHEE, M.D., seventy-five, Detroit dermatologist for 37 years, died June 11, 1962, at his Port Huron home.

A graduate of University of Michigan Medical School in 1915, Doctor Van Rhee was on the staffs of Harper and Receiving Hospitals and was associated with the old Detroit College of Medicine. He moved to Port Huron in 1953 and retired from practice in 1961.

Doctor Van Rhee was a Life Member of the Michigan State Medical Society. Other memberships included the Dermatological Society of Detroit, the Tri-State Dermatological Society and the American Dermatological Society. He served in France during World War I with Base Hospital 36.

Michigan Authors

Samuel J. Levin, M.D., and **John Weisnagel, M.D.,** Detroit, "Theophylline-Glyderyl Guaiacolate Elixir (Quibron®) Clinical and Blood Level Studies in Bronchial Asthma in Children," *Annals of Allergy,* May, 1962.

Charles D. Hafner, M.D., Cincinnati, **Eugene Mezger, M.D.,** and **John H. Wylie, Jr., M.D.,** Detroit, "Cytosarcoma Phyllodes of the Breast," *Surgery, Gynecology and Obstetrics,* July 1962.

M. A. Block, M.D., J. H. Wylie, M.D., and **L. S. Fallies, M.D.,** Detroit, "Maneuvers to Facilitate Difficult Biliary Tract Surgery," *Surgery, Gynecology and Obstetrics,* July, 1962.

Robert D. Larsen, M.D., and **Joseph L. Posch, M.D.,** Detroit, "Dupuytren's Contracture," *Surgery, Gynecology and Obstetrics,* July, 1962.

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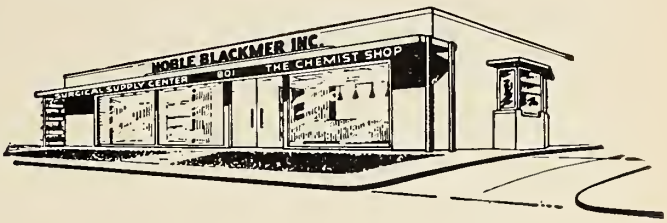
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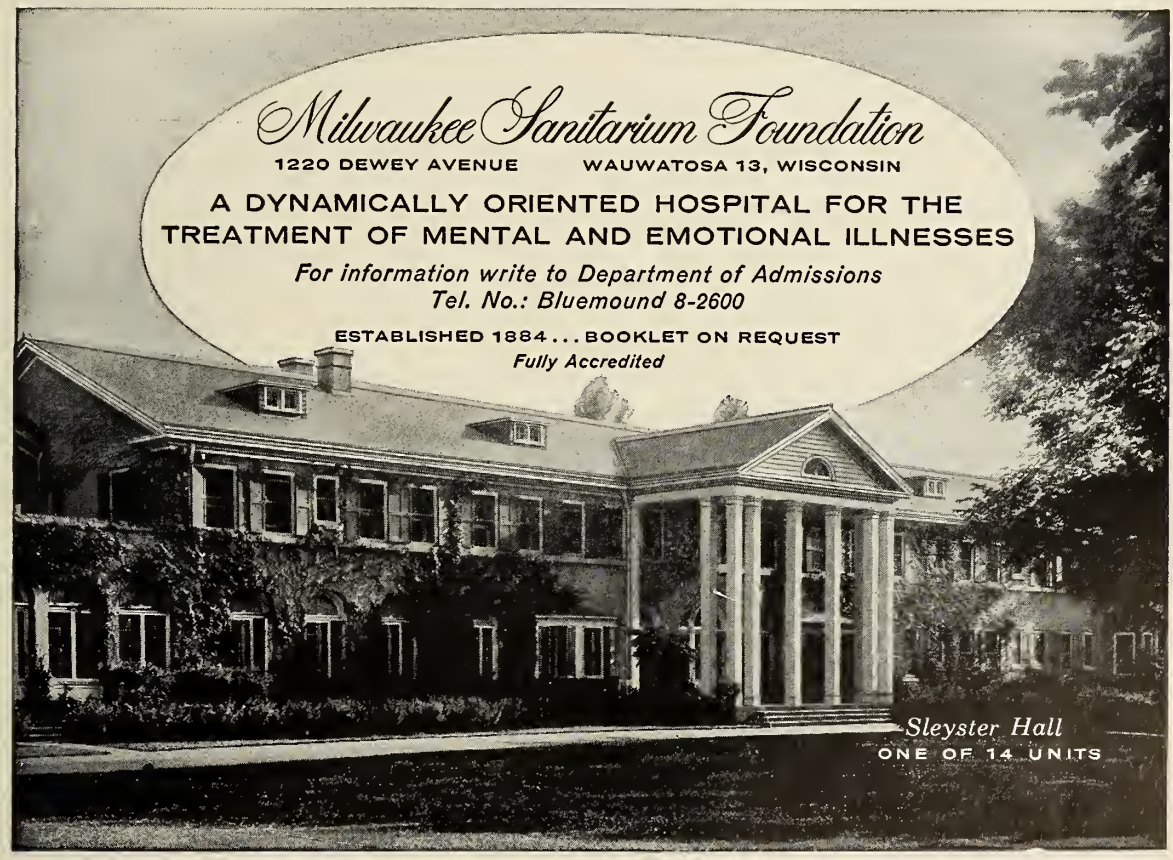
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TRAINEESHIPS AVAILABLE—Since the National Institute of Mental Health has increased the number of traineeships available to each psychiatric training center, we now have two positions available for qualified General Practitioners. Interested physicians should contact the Psychiatric Division, Wayne County General Hospital, Eloise, Michigan. Phone: CRestwood 4-3000.

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PLAN FOR PSYCHIATRIC RESIDENCY starting July, 1963? December 1, 1962 is our deadline for applying for stipends in the NIMH General Practioner Program! Three-year approved—Michigan's vacationland—Balanced didactic and clinical training in comprehensive program; Salary range in three-year NIMH G.P. program: $10,189, $11,463, $11,964. Dr. Curtis W. Page, Training Director, Traverse City State Hospital, Traverse City, Michigan.

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Volume 61 Number 9
September, 1962

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THE COVER

Articles in this number deal with Child Welfare as it relates to recreation, physical fitness and the many other aspects of health and happiness.

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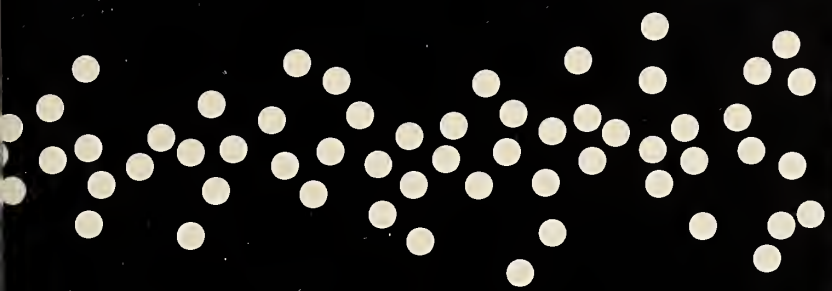
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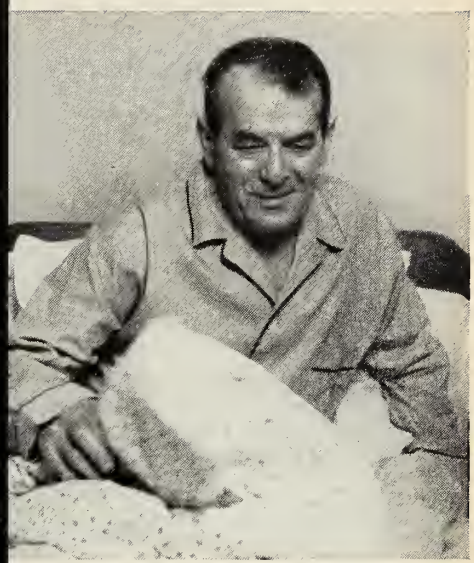
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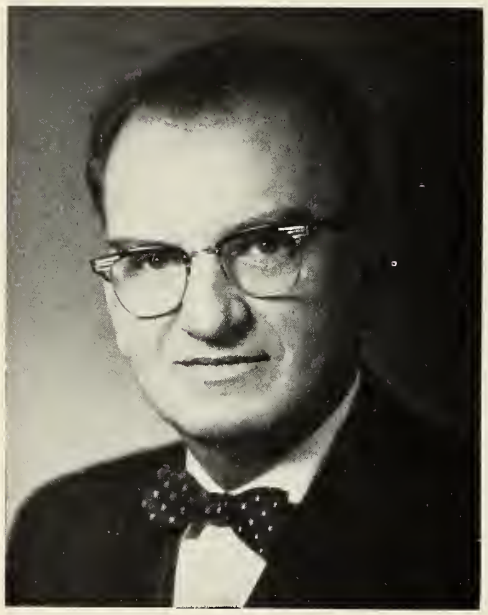
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President's Page

A WINNING TEAM



President
Michigan State Medical Society

It's great to be an active member of a winning team.

Michigan Doctors of Medicine, their county and district medical societies, the Michigan State Medical Society and the American Medical Association are such a team.

With the expert help of the dedicated laymen on the staffs of our several societies and with the support of thinking people everywhere, we have won another major victory in our never ending struggle to preserve our unexcelled American system of medical care. The defeat of King-Anderson type legislation this year has been especially important.

The American people are now alerted to the fight we have been waging against the forces of imported Socialism. They know of our need and desire to continue our efforts to better serve them, by meeting our responsibilities and developing our opportunities in a traditionally American way. Our struggle and our victory have awakened other groups to their peril.

The major decision on medical care was made in the national Congress this year by elected representatives of the people. This will be true next year. It will be true from here on in at all levels of government. Our well informed public and our newly won allies expect us to actively support elected officials who share our beliefs and vote accordingly.

If you ever doubted it, you must know now that a good doctor, whether in research, in teaching, or in practice is one who works with his society and with others to support candidates for public office who share our philosophies.

THE TIME IS SHORT. HELP IN EVERY WAY YOU CAN.

This coming year you will receive stimulating leadership from my successor and good friend, Dr. Clarence I. Owen. He has my best wishes and pledge of vigorous support.

Working for this great Society has been a thrilling privilege. My thanks to each and every one of you for your help.



Urge M.D.'s Help Get Out the Vote

Every doctor in Michigan is urged to participate in a "get-out-the-vote" campaign aimed at the November 6 election.

The entire MSMS effort takes cognizance of the fact that a physician's time is limited, and consequently MSMS has developed a "package" which should prove effective.

Each doctor will receive an office poster, a supply of brochures, and a supply of gummed stickers. All are designed to emphasize the responsibilities of good citizenship and are strictly non-partisan.

Every doctor is urged to be registered. Persons who have not voted recently, who have changed residence, or who may doubt that they are registered, must register with their city or township clerk by October 8 or they will not be eligible to vote in November.

It is particularly important to note that persons who will be qualified on November 6 (for example, persons whose 21st birthday comes after October 8 but by November 6 or who will have fulfilled the six-month residence requirements by election day) can register before October 8.

Absentee voter ballots are available under Michigan law to only two categories of persons—those who will be out of town on election day, and those who because of illness or physical disability cannot go to the polls. Doctors can be of real assistance to the ill and shut-in so that they will be able to vote.

The final appeal is to ask every MSMS member to vote on November 6.

* * *

Supports School Fitness Effort

"The concern about the total person in any child welfare and youth fitness program is expressed effectively in a following scientific article by Professor Delbert Oberteuffer, of Ohio State University."

This statement is offered by Robert H. Trimby, M.D., Lansing, chairman of the MSMS Child Welfare Committee. The Oberteuffer article is the lead paper in this special number dedicated to Child Welfare.

Members of the MSMS Child Welfare Committee have been active with the Michigan State Department of Public Instruction in its youth fitness program. The Committee helped develop a kit of materials for distribution to schools and to the appropriate leaders of MSMS and county society committees in this area.

HIGHLIGHTS OF THE COUNCIL

Mid-Summer Meeting of July 19-20, 1962

One hundred and one individual items were presented to The Council at its mid-summer meeting. Chief in importance were:

- Review of Committee Purposes. The Council reviewed the purposes of all committees not otherwise delineated in the MSMS Bylaws. A general statement was drafted containing overall instructions on committee policies for the information of chairmen. Both the statement and the committee purposes were approved by The Council.
- The progress report on the MSMS building was presented by Advisor K. H. Johnson, M.D., Lansing.
- H. F. Falls, M.D., Ann Arbor, reviewed the 45 recommendations contained in the final report of the Governor's Commission on Prepaid Hospital and Medical Care Plans based on the McNerney Report. Dr. Falls' statement was approved by The Council with special commendation to him for excellent service in acting as Advisor to the Governor's Commission. The Council requested the Medical Socio-Economic Committee to review the Commission's recommendations and prepare a commentary on each for presentation to The Council; further that an MSMS delegation frankly urge the Governor to peruse the MSMS commentary and also give favorable consideration to MSMS nominees in the appointment of the two committees proposed by the Governor's Commission.
- The Report of the AMA House of Delegates, June, 1962 meeting in Chicago, was presented by Wm. A. Hyland, M.D., of Grand Rapids, Chairman of the Michigan delegation; The Council received the report with commendation and referred it to the Editor for publication in JMSMS.
- Committee Reports included: (a) Occupational Health Committee, meeting of April 13; (b) Committee on Professional Insurance Plans, meeting of April 26; (c) Geriatrics Committee, May 15; (d) Ad Hoc Committee on Conferences on Health Care, May 16; (e) Committee on Alcoholism and Narcotics Addiction, May 17; (f) Committee on Cancer Control, May 17; (g) Maternal Health Committee, May 17; (h) Public Health Committee, May 23; (i) Liaison Committee with Michigan State Nurses Association, May 23; (j) Committee on Arrangements for 1963 MCI, June 14; (k) Television Committee for 1963 MCI, June 20; and (l) Medical Socio-Economics Committee, June 20.

  Reports on two Committees to which MSMS sends representatives were presented: (a) Permanent Conference Committee, meeting of May 23; and (b) Medical Adisory Committee of Michigan Hospital Service, June 6.
- The Finance Committee of The Council met on July 18 and studied the monthly financial report; approved the proposed paragraph on "Finances" for Annual Report of The Council; studied requests of the Committee on Prevention of Highway Accidents for purchase from AMA of pamphlets for distribution to interested physicians and decided that the publication "Medical Guide for Physicians in Determining Fitness to Drive a Motor Vehicle" be offered free to MSMS members via the President's Letter after the price of reprinting this brochure is received from the AMA in quantities of 250 to 1,000.

  The Finance Committee approved additional use of speakers who presented papers at the Gull Lake Conference on Maternal and Perinatal Welfare and recommended the incorporation of these talks into the postgraduate program, at the suggestion of the Maternal Health Committee and the Postgraduate Medical Education Committee. The Finance Committee also discussed with the Editor the income and expense of JMSMS and plans for future improvement in content; also House of Delegates expenses for the year and MSMS contribution to Michigan Association of the Professions.

  In approving the report of the Finance Committee, The Council recommended that in its supplemental report, some recommendations be included re most valuable use of the House of Delegates Ways and Means Reference Committee.
- The Advisory Committee to the Executive Director met on July 18 and considered two matters: (a) Travel accident insurance for MSMS officers and staff. The Committee looked with extreme interest on such coverage and recommended that this matter be referred to the Committee on Professional Insurance for complete exploration and advice to The Council; (b) the Committee also discussed policy matters with Legal Counsel Lester P. Dodd concerning allied health professions and cancer registries.
- The Publication Committee at its July 18 meeting discussed requests for MSMS directories, studied

(Continued on Page 1066)

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Highlights of the Council Meeting

(Continued from Page 1064)

proposed paragraphs on "The Journal" for Annual Report of The Council; annual review of Journal courtesy list; review of the Journal costs and revenues; verbal report from Bruce Publishing Company representatives (President W. T. Coulter and Sec'y-Treas. Robert J. Bruce) on overall details of publishing JMSMS from manuscript to finished book; review of bids for printing 1962 Membership Directories; and report of subcommittee to review content of THE JOURNAL (which subcommittee report was deferred for further consideration by The Council in September.)

- The County Societies Committee met on July 18 and discussed (a) resolution from the Upper Peninsula Medical Society re tour of U P components by MSMS officers and staff; and (b) the expediting of a program urging maximum activity by the medical profession in support of principles and persons who believe in the standards of Medicine; (c) preliminary study was given to the Michigan State Plan for Hospital and Medical Facilities Construction, with further study deferred until the next meeting of this Committee.
- Council Chairman Oliver B. McGillicuddy, M.D., of Lansing, reported on the following matters: (a) That he and President Engelke had appointed E. A. Irvin, M.D., Chairman of the MSMS Occupational Health Committee, to attend the AMA Congress on Occupational Health, October 2-3; that staff personnel, Messrs. Burns, Brenneman and Tryloff, would attend the AMA Institute for Medical Society Executives in Chicago, August 30-31; that President-Elect C. I. Owen, M.D., of Detroit, would be official MSMS representative to the Kentucky State Medical Association Annual Meeting in Louisville, September 18-20. (b) The Council Chairman read the recommendations, developed by staff, for improving liaison between MSMS committees and similar committees of component societies, and gave its endorsement to the plan. (c) The Council Chairman indicated that Councilors would be assigned as Advisors, as in the past, to MSMS House of Delegates Reference Committees. (d) The Chairman also advised that he had received, as an interim report, a communication from R. L. Rapport, M.D., of Flint, Chairman of the MSMS Tuberculosis Control Committee, re the use of platinum needle in survey skin testing. (e) The Council Chairman called upon H. F. Falls, M.D., of Ann Arbor, Chairman of the Committee on Medical Socio-Economics, who explained that Research Director Richard M. Campau had completed "A Study of the Adequacy of Income and Asset Limitations of the Michigan Medical Assistance to the Aged Act" as requested by the Legal Affairs Committee and authorized by The Council, which study was referred by The Council to the Legal Affairs Committee.
- President Otto K. Engelke, M.D., of Ann Arbor, presented the following matters: (a) Request of Medic-Alert Foundation for publicity, which The Council received as information; (b) the value of sending an unofficial observer to Saskatchewan to review the situation which was authorized (the representative to be selected by the President and Council Chairman).
- Secretary D. Bruce Wiley, M.D., of Utica, presented the following matters: (a) Recommendation that invitations to the MSMS Annual Session be sent to non-medical faculty members of Michigan medical schools, which idea was approved. (b) Request for an extension of time for payment of 1962 MSMS dues from members of a component society, was granted by The Council. (c) Letter of thanks was received from Michigan State Medical Assistants Society for MSMS contribution toward its convention to be held in Detroit, September, 1962, at which time the AMA President will be on the program.
- Executive Director Wm. J. Burns reported on the following matters: (a) Staff covered 22 committee meetings since the last meeting of The Council; (b) arrangements for the MSMS Annual Session are all complete except a few details of the State Society Dinner Dance on which good assistance is being obtained from the Woman's Auxiliary; (c) numerous mailings were sent out during the past month to the membership and to parts of the membership including report on King-Anderson action in the United States Senate and on the Saskatchewan problem.
- Public Relations Counsel Hugh W. Brenneman reported on (a) details of the Saskatchewan matter; (b) on King-Anderson proposal; (c) on state legislation; (d) on the new type community meetings on major issues affecting freedom held at Alpena, Port Huron, and Saginaw; (e) on the Governor's Study Commission on the McNerney Report and its recommendations of extreme interest to the medical profession; (f) on the need for community projects inaugurated by component societies to demonstrate concern of the medical society for community welfare; (g) on participation in the Saginaw County Fair (which was approved by The Council); (h) on liaison with the Michigan State Pharmaceutical Association; (i) on the new MSMS exhibit to make its appearance at the Michigan State Fair.
- The Council recognized the honorary degree (J. D.)

(Continued on Page 1068)

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Highlights of the Council Meeting

(Continued from Page 1066)

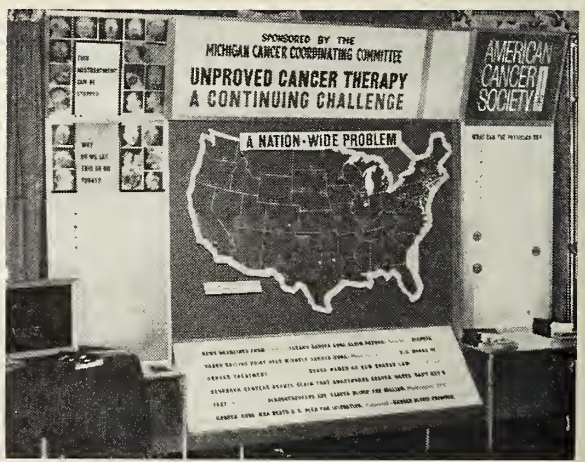
recently conferred on Legal Counsel Lester P. Dodd of Detroit by the Detroit College of Law.

- Speaker J. J. Lightbody, M.D., presented the following matters: (a) Three committees of the House of Delegates met since the last meeting of The Council; (b) agenda for the 1962 House of Delegates Session has been developed—the Delegates looseleaf notebooks again will be used this year; (c) Nominees for Certificates of Commendation, to be presented to the House of Delegates, are Jerome W. Conn, M.D., Ann Arbor, G. D. Cummings, M.D., Lansing, Charles S. Kennedy, M.D., Detroit, and Robert L. Novy, M.D., Detroit; (d) Inequity in the number of Councilors chosen annually, caused when the House of Delegates changed the term from five years to three years at its 1961 Session, has resulted in three Councilors being eligible for election in 1962, nine Councilors in 1963, and seven Councilors in 1964. This problem was referred to the House of Delegates Committee on Constitution and Bylaws for solution.
- Matters of mutual interest were presented by Michigan Health Commissioner A. E. Heustis, M.D., and discussed by members of The Council.
- Individual members of The Council reported on the status of organized medicine in their district and presented matters and problems for information and solution.
- President-Elect C. I. Owen, M.D., presented the following matters: (a) American Medical Education Research Foundation received a total of $15,965 per its last monthly report. (b) The MSMS Committee personnel for the Society year 1962-63, as appointed by Doctor Owen, was presented to The Council and approved. (c) The report of the Ad Hoc Committee to Study Headquarters Organization was presented, approved with minor changes, and will be presented to the House of Delegates as Supplemental Annual Report No. 2 of The Council.
- The Annual Meeting of The Council with the Michigan Crippled Children Commission was held at which matters of mutual interest, relating to administration of the Crippled and Afflicted Children Acts, were discussed.
- The Annual Report of The Council was presented, amended in one item, and referred to the House of Delegates.
- Legal Counsel Lester P. Dodd of Detroit, presented the following matters: Opinions on (a) research studies, as sought by the Michigan Health Commissioner; (b) mediation and ethics procedures of county medical societies; (c) power and duties of a coroner; (d) citizenship requirement of medical practice; (e) formation of a research and medical education corporation by members of a hospital staff; (f) types of membership in a county medical society. (The Council requested that component societies again be urged to make their constitution and bylaws confirm to the MSMS model in all important aspects; further, that the Model Constitution and By-Laws are available as a guide for Component Societies which are reviewing their own By-Laws.)

  Legal Counsel rendered opinions on: (a) staff audit committees; (b) blood specimens for research purposes; and (c) professional incorporation.
- Matters of mutual interest were presented by Sidney Adler, M.D., of Detroit, President of Michigan Medical Service, who distributed copies of his "President's Report to The Council and Delegates of the Michigan State Medical Society" which report will appear in the MSMS Delegates Handbook. Doctor Adler was thanked for his attendance and excellent report.
- The annual joint meeting with the Board of Michigan Health Council was held at which reports were given on the activities of the MHC.

Helps Medical Schools

The Bay-Arenac-Iosco County Medical Society recently presented checks for $355 to each of the two medical schools in Michigan, to be used for whatever purpose the schools deem most fitting.

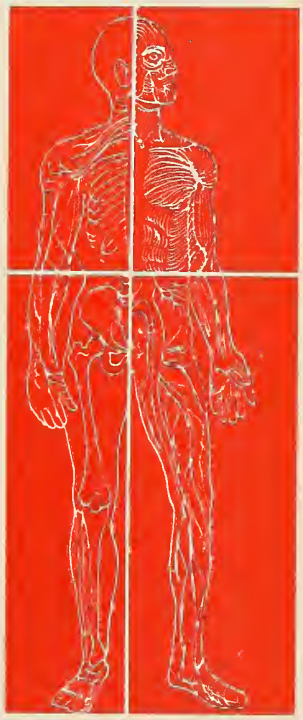


The active work of the Michigan Cancer Coordinating Committee to combat the Cancer Quack was effectively illustrated at a booth at the 1962 Michigan Clinical Institute. A five-point action program was suggested about "What the Physician Can Do To Help."

The Role of Physical Education In Health and Fitness

Delbert Oberteuffer, Ph.D.
Columbus, Ohio

CLINICAL 1089



WE are today in the fourth discernible period of the 20th century of intensified interest in the role of physical education in fitness. Theodore Roosevelt started the first one when he publicly advocated the vigorous life as a way of making ours a strong nation. The second was caused by the revelations of the physical examinations from World War I which shocked legislators to the point where some 27 states passed laws in the succeeding ten years requiring that physical education be taught in schools as a way of improving the vigor of our youth. World War II brought the third national effort to improve physical fitness of the general as well as the school public. Those of us who were tapped for this sort of civilian service will remember that we were directed to rope off streets and by using available firemen and policemen lead the public in a program of exercises aimed at improving the fiber of the embattled American.

And now for the fourth time in this century a wave of interest is felt. It is marked by Presidential citations of need and extraordinary effort from the Capitol to persuade communities to improve the fitness of youth by developing strong programs of health education and physical education including a recommended daily fifteen-minute period of vigorous exercises.

Historically, 'twas ever thus! Every time some nation has been in a jam, either real or imaginary, it has sought to improve the fitness of youth as an important part of the solution to problems. The early programs of physical training in Greece, in 19th century Germany and Sweden, in 10th century Italy, Germany and Russia programs have been used for national purposes in support of political or social ideologies. Youth has been captured in every instance and drilled, exercised, and strengthened so as to grow in support of the beneficent system, and, more importantly, to protect that system against its enemies.

And so it is with us. Undoubtedly, we need a strong populace for either a warm peace or the cold war. To guard the health of the nation is a worthy ambition no matter what our destiny may be. To control disease, to improve nutrition, to prevent mental and nerv-

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Presented at the joint sessions of the Sections on Maternal and Child Health, School Health, and Nutrition of the American Public Health Association, and the American School Health Association, Detroit, Michigan, November 14, 1961.

Reproduced by permission of the Michigan Department of Health/Maternal and Child Health Division.

Dr. Oberteuffer is Professor of Physical Education, The Ohio State University.

ous diseases, to seek emotional, social and intellectual stability, and to secure appropriate growth and development of children and youth become almost an abiding national passion. We are committed to such effort, and enthusiastically so. Our form of political life not only requires a nation of healthy citizens, but guarantees them the *right* to be healthy.

But, whenever we go through one of these periods of greater interest in fitness we should at least be in possession of an accurate picture of need in order to develop a true program in response. We should be able to distinguish fact from fiction in both areas of need and program. How is it today?

Some people have developed a test of muscular strength and flexibility of the spine, given it to several thousand children here and abroad, find our youth comparing unfavorably with Europeans, or Japanese, or whoever, and immediately have concluded (a) that our children, in fact all of us, are weak, and flabby; (b) that our technological culture is destructive of our capacity for survival and (c) if we don't do something about it we will lose the cold war. This position, widely advertised in the popular press, has created quite a national stir.

So once again programs of physical education are asked to step up the intensity of their purpose and the vigor of their content in order to save youth, and thus our country from desuetude, if not actual destruction! We have re-emphasized an atrociously unscientific but popular term "physical fitness" and we are being told that our children are woefully deficient in it. It is alarming, in more ways than one because it is not a situation marked by clear fact, clear need, and clear response. In fact there is great confusion in all three categories—of fact, of need, and of response or program.

For example, does one equate the sound advice and factual information of scientists in the area of child growth and development, or of pediatricians, with the television personality who advocates the criss-cross leg exercise for infants three months old? Does one equate the scientific papers appearing in the collection from the Institute of Normal Human Anatomy meeting in Rome in 1960 and bearing the imprint of such international names as Larson, Hollmann, Simon, Joseph Wolffe, Jokl, Missiuro and the others who contributed, with the prattle of those who run the exercise emporiums for money and who are advertised as our greatest physical educators? Does one equate the sound advice on exercise coming from exercise physiologists such as Karpovich, Steinhaus, or Mayer with opportunistic entrepreneurs who wouldn't know the myocardium from oxygen debt?

But we wander. Our problem is: What is the role of physical education in health and fitness? Let me see if my version of the answer comes anywhere near your version.

In the first place the need for activity on the part of the human organism has been well established. Documentation of this is unnecessary. The evidence is clear. Man is an active creature and activity is important to his growth, development and survival. The need for exercise is here to stay.

But apparently nature does not care a bit how one gets the activity needed. The *form* the activity takes is biologically unimportant as long as no harm is done. Run around the block, play football, dance a jig or go climb a telephone pole. The heart doesn't care. Muscle doesn't care. The rectus abdominus, which is a pretty important muscle in maintaining visceral order against visceral chaos doesn't care whether it is used in basketball, bowling or burglary as long as it is used. If muscular strength is what we are after to correct the evil ways into which we have fallen nature doesn't care how we get it—or at what price. Strength building activities can be anything that builds strength—and thus they need to have no other purpose, no other meaning, no discernible relationship to anything significant except strength itself.

I'm afraid this is the sort of thing that some are calling "physical" fitness—a sort of muscular development which comes from exercise and which can be used for any purpose at the discretion of the possessor.

In these terms there would be relatively few problems involved in making the nation muscularly strong. Just set 40 million school children to exercising with sufficient vigor and keep them at it and we will accomplish our objective!

There are only two things wrong with this concept: Exercise is only *partially* responsible for fitness, and strength is only *one* of the concerns of physical education.

Our scientists, our philosophers, our holoists, our educators, the better informed physical educators, and even our poets have proclaimed that there is more to fitness than muscle strength. A conference of such people in 1956 described fitness as "That state which characterizes the degree to which the person is able to function."* It implies the ability of each person to

*The AAHPER Fitness Conference reported in the *Journal of Health, Physical Education and Recreation* for September, 1956.

develop most effectively his potentialities. *And* the conference agreed that fitness is maintained at a high level only if *motivation* is continuously present! This requires an inner desire—an egogenic stimulation. The activities which produce fitness must have meaning! The conference listed seven components of fitness all of which are related to each other and are mutually interdependent. These are:

1. Optimum organic health consistent with heredity and the application of present health knowledge;
2. Sufficient coordination, strength, and vitality to meet emergencies, as well as the requirements of daily living;
3. Emotional stability to meet the stresses and strains of modern life;
4. Social consciousness and adaptability with respect to the requirements of group living;
5. Sufficient knowledge and insight to make suitable decisions and arrive at feasible solutions to problems;
6. Attitudes, values, and skills which stimulate satisfactory participation in a full range of daily activities;
7. Spiritual and moral qualities which contribute the fullest measure of living in a democratic society.

Now what, pray tell, does physical education have to do with fitness as described in those terms? Well, the relationship to *all seven* of them is the only thing that makes physical education physical *education*. Otherwise it would be physical training—and there is a vast and uncomfortable difference between the two!

In the somewhat peculiar and not clearly understood combination of words which is "physical education" the noun "education" becomes of great importance. It is *not* the same thing as training—physical training. Physical training trains—like you train a dog or a pony. As Kelley and Rasey say:†

"Much of our education is designed to train people rather than to educate them. When one individual trains another, he delimits the variety of possible responses, making the desired responses automatic and eliminating the possibility of other responses. We can train lower animals, but we cannot educate them. Training, limiting possible responses, is enslaving, while educating is liberating. It is not that one is trained not to think, but that the act of training by its very nature delimits thinking. In the degree that the individual thus trained does think, he has been robbed of confidence in his own thinking."

But physical *education* implies that someone, somehow, is being *educated* through the games, sports and dance culturally important to our race, (and it is important to know the difference.)

To educate means to enrich the capacities of human intelligence. It means to help the individual gain increasing possession of himself and his powers; it means to recapitulate his culture, to deepen and widen its social content, to give him control over the methods of living within that culture. Some would say that the essence of education is the development of intelligence, of powers of thought, of the capacity for reflection, of human reason. The task of education is to develop the fullest capacity to take thought, to reflect, to weigh, to foresee, to consider consequences, to choose among alternatives. There may be other descriptions of education but in the main they all describe a relationship between the learner and his environment in which the former is assisted to gain some personal control over and understanding of the latter by the cultivation of powers inherent within him. This is to make him *fit* in the terms of the Conference described. He *learns* to do this. He cannot do it as a child and as life goes on he develops his powers to the point where he can. Hullfish adds this thought**:

"The term *learning* may then be applied to any process within which potential stimuli become meaningful, change meaning, are discriminated with respect to possible meaning, and the like."

If we view meanings as the basic building blocks of learning, then any event which results in a reconstruction or reorganization of a meaning pattern may be called a learning experience. Any experience, then, which in consequence of its meaningfulness, "increases ability to direct the course of subsequent experience" may be called an educative experience.

If physical education means that someone is educated through or by the "physical" experience, or in a "physical" environment, then the experience should be productive of the qualities described in the definitions. *Can* this happen? *Does* this happen? By accident, or by design? Maybe it is that no education at all takes place through the physical educational experience. At least in these terms. Perhaps this is not what the term physical education is meant to imply. Perhaps the only relation physical education has to education is that experience in physical education so

†Earl C. Kelley and Marie I. Rasey. *Education and the Nature of Man*. New York: Harper and Brothers, 1956, page 106.

**Reflective Thinking: The Method of Education. H. Gordon Hullfish and Philip G. Smith. Published by Dodd, Mead and Company, New York, 1961.

conditions the organism that it can receive the stimuli which permits the student to become educated! This is the sound body idea in which to house the sound "mind." This is the ancient dichotomous view. This belies man's unity. To many persons in physical education and to many from other fields other values from the physical education experience all loom larger and more important than the educational ones. Physical values come first—educational values a poor second, and only if something good *happens* to come along.

It should be clear, however, that if that point of view is held then it is hypocritical to use the term physical education. The term should be physical training, or physical exercise or some other to describe what is happening. If "education" is the noun used then a clear reasonable and demonstrable relationship to its substance must be developed in the physical education curriculums. Someone must be educated. Educational outcomes must be sought, planned for, taught for, and obtained. They must be of prime concern, not secondary or incidental within a physical education program.

What kinds of outcomes could be considered educational? What experiences in physical education programs will be likely to cultivate this intelligence, develop this ability to think, to weigh, to reckon consequences, to assume possession of oneself and one's powers, to become a rational man?

The answer is inherent in the questions. Only those experiences which *demand* thinking will produce thinking! Only that kind of participation which requires the student to weigh, to reflect, to study will produce those qualities. It will not be likely that they will be produced by the kind of activity in which the participating individual does not become involved in some problem solving, evaluating, *thinking* capacity. Can a team have the chance to solve some of its own problems or must the coach *always* direct the strategy, call the plays? Can a class become involved in seeking desirable outcomes from their work? Is social, religious, racial integration of consequences to students? What responses can be developed to cheating at games, sportsmanship, values in athletics and to appreciation of good play?

Experience in a well-conceived physical education program can aid in the solution of such problems. The understanding of integrative processes and the relationship of the physiological, psychological and other functional elements to development can be enhanced through physical education. Comprehension of strength, ability, courage, daring, and skill can be developed. One makes progress in the solution of such developmental tasks as achieving skill in motor control and coordination, independence in self-care, learning to live in groups and in relation to competitors.

An analysis of the effects of *these* experiences from a physical *education* relate directly to the stated components of fitness, and this kind of physical education has an *important* relation to fitness and health.

But, let's go one step farther. There is perhaps no more compelling problem facing our educational system than that of deepening and widening our understanding of democracy. Presidents have said that our young people must be physically, mentally, and spiritually prepared for American citizenship. This seems to relate to component Nos. 4 and 7 from the Conference report—social adaptibility and qualities which make it possible to live in a democratic society.

How do you go about developing these qualities? By marching, drilling, exercising in groups and mobs under the impersonal supervision of an authoritarian drillmaster who counts the numbers while the victims pray they may be spared further boredom and when released from it vow never to have *anything* to do with physical exercise the rest of their lives? This is hardly a satisfying experience in adaptibility to group living; hardly productive of the spiritual and moral qualities needed to live successfully in a democracy! This sort of thing may temporarily produce some muscular strength but it is also very likely to produce emotional and perhaps even spiritual trauma.

To preserve the democratic way, to bring the oncoming generations into a clear understanding of its meaning, to develop a deep and unmistakable sensitivity to what democracy really is—this is a compelling challenge. The program of physical education cannot afford to be caught napping in this respect; nor can it be found guilty of teaching by precept or practice the ways of behaving and thinking which are characteristic of authoritarian regimes.

We have said that schools in general and physical education programs in particular have always been used as instruments of political and social power. One shudders at the memory of the marching Hitler youth, fit, strong, singing their way through exercises and sports so they could better reflect the marching ruthlessness of the most inhuman regime the 20th century has known.

What social and political purpose then does 20th century American physical education serve? It cannot be culturally neutral. Opportunities abound in the physical education program to provide experience with democratic processes. It should be clearly said and

clearly understood that as long as physical education remains an element in the curriculum of a school or college which is dedicated to the perpetuation of the democratic way no teaching or administrative practice may, with conscience, demonstrate other and contrary values. The autocratic empirical administrator is as bad as the authoritarian teacher or coach. Each is a menace, in his or her own way, to the planned intellectualized approach to the perpetuation of democracy through the schools.

In some programs the students all wear the same kind of uniform, go through the same exercises, count the same cadence as they march, respond with the same imposed replies, affect the same posturing as they go through their exercises. They conform. The standard is set. The motive comes from outside, from above. It takes no intellectual response to "count-off" and to wave one's arms about in a calisthenic drill aimed at "physical condition."

It does, however, require self-initiated intellectual response to figure out the strategy of a game and execute it. Or to compose a dance, or to plot the course for an overnight hike. It requires self-initiated activity to practice what one has been shown about how to swim, or how to kick a soccer ball. This type of activity must come from within, and be willingly chosen as a rewarding experience. *This* sort of activity is within the cultural tradition of a free people.

The opportunity is here. Modern physical education *can* serve as an educative experience or it can frankly and honorably renounce its claims to education and direct its energies to producing the sound body in which to house the sound mind. There is something pathetically unscientific about that effort but there is nothing dishonorable in it—except that it must not use the term physical *education.*

But to seek the integrative development of the whole man, to be as concerned with his ethics as with his physiology, to be helpful in his interpretations of motives, to aid him in his understanding of human nature, to help explore those deep wells of yearning within himself, to help him see that excellence is not measured wholly by scores—these are some of the *other* outcomes which are within the reach of a well planned physical education curriculum.

And so we, at any rate, believe the role of physical education in health and fitness is clear—and important. It is indispensable to both. Physical training, on the other hand, or merely muscle exercises for strength alone may paradoxically, be destructive of the many things they are designed to help. By their sheer meaninglessness and potential for boredom, and because they are almost invariably terminal experiences, and because they offer no intrinsic appeal they may be so regarded by the self-directing individual to drive him *away* from any desire to be fit or from any practice which may contribute to his fitness.

We must be careful, not merely enthusiastic. Not just any activity as long as it produces sweat and strength is educative in the rational interpretation of that word. From modern physical education programs we expect *lasting* values in continuous participation—and accumulation of "fitness scores" is not only insignificant compared to this but may actually be defeating of it.

How to Spot Cancer Quacks

E. G. Miller, M.D., president of the Public Health Cancer Association of America, speaking at the recent Institute on Cancer Control at the University of Michigan, offered these tell-tale signs to help the public spot the cancer quack and his phoney drugs and devices:

—His method is usually "secret."

—Only the quack and his assistants can use it.

—It is highly praised by people least qualified to judge.

—The quack often claims he's "persecuted" by the "medical trust."

Doctor Miller said the public spends one billion dollars a year on quackery, or roughly one-twentieth of the nation's total health bill. Some Federal agencies such as the Food and Drug Administration, Fair Trade Commission, Post Office and Department of Justice can exert control over certain branches of quackery, said Doctor Miller. But he urged "supplementation of these efforts by effective local and state enforcement."

Diabetes in Pregnancy

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UNTIL insulin became available for the treatment of diabetes, few diabetic children survived to reach reproductive age. The small number who lived were almost always infertile. Consequently, diabetes-complicating pregnancy was an infrequently encountered problem. Now diabetes in childhood and adolescence can be so well controlled that most of the afflicted children survive into adulthood and can become pregnant. The diabetic complication has introduced certain problems in the management of the pregnancy to a safe conclusion for both the mother and child.

In the Michigan Maternal Mortality Study for 1950 through 1959, 14 mothers were found to have died as a result of a diabetes-complicating pregnancy. Examination of fetal and infant death certificates in Michigan for the years 1959 and 1960 revealed that there were 174 fetal deaths (stillborn), and 34 neonatal deaths which were ascribed to the complication of diabetes in pregnancy. The perinatal mortality rate due to diabetes increased 36 per cent in 1960 as compared with 1959. Nearly one half of these stillborn infants were premature by weight or gestation. However, about twenty per cent of them weighed over 10 pounds. Most of the neonatal mortality among term infants occurred in children weighing over ten pounds. In Michigan, in pregnancy complicated by diabetes, the fetal mortality rate is approximately twice as great in the Negro as in the white race.

There were seven babies with congenital malformations. Three of these were anencephalic infants, one had congenital heart disease, one, malformation of the urinary tract, one, hare lip and cleft palate, and one, multiple malformations incompatible with life. This represents over three times the incidence of congenital defects reported in the general population in Michigan. There were fourteen abnormalities of the placenta or cord. It is apparent that the complication of diabetes with pregnancy is an important cause of maternal mortality, perinatal mortality and the occurrence of congenital defects.

It is almost axiomatic that the outcome of a diabetic pregnancy depends on the adequacy of the control of the diabetes. Maternal and perinatal mortality can be kept at approximately the level of that among non-diabetic pregnancies providing the diabetes is recognized and well controlled. This presumes differentiation of diabetic glucosuria from renal glucosuria and the thorough investigation of women whose family history includes such features as diabetes, obesity, retinopathy and neuropathy. Previous pregnancies complicated by polyhydramnios, toxemia, spontaneous abortion, stillbirth, fetal anomalies, and large but physiologically premature infants should be suggestive. While a small infant does not exclude diabetes, one weighing over ten pounds presages diabetes in 20 per cent of mothers. In spite of all these signs and symptoms, diabetes may still remain undetected. It would be ideal to test every pregnant woman for glucosuria, hyperglycemia and glucose tolerance. In order to properly control diabetes during pregnancy, the prenatal visits should be made at least every two weeks. Unless the attending physician is particularly skilled in the management of diabetics, frequent consultations should be held with an internist or an endocrinologist. In order to distinguish diabetes from renal glucosuria, a post-prandial blood-sugar determination should be made. When significant hyperglycemia is not found, an oral glucose tolerance test is useful. A diabetic glucose tolerance curve is always diagnostic.

Pregnancy progressively reduces the glucose tolerance and usually increases the insulin requirements after the first trimester. Nevertheless, close prenatal supervision is necessary during this early period be-



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cause the tendency to vomiting makes it extremely difficult to estimate the correct insulin dosage from time to time. When vomiting is marked, there is great danger of periods of hypoglycemia occurring. Regular insulin is to be favored rather than the long acting variety. It is safer to permit a trace of glucosuria to be exhibited occasionally. The insulin requirement rises during the second and third trimesters and the dosage may need to be eventually doubled or even tripled.

A low sodium diet providing approximately 30 calories per kilogram current weight, per day, depending on the patient's activity and nutritional status is usually most satisfactory. 1.5 Gm. to 2.0 Gm. of protein per kilogram daily with a minimum of 100 grams, 150.0 Gm. to 200.0 Gm. of carbohydrates and sufficient fats to make up the balance of caloric requirements should be insured. Oral hypoglycemic drugs are less reliable than insulin in maintaining the blood-sugar at between 120 and 140 mgms per 100 cc of blood. The cardiovascular system, including the retinal vessels, must be carefully checked from time to time. Renal function tests are indicated if albuminuria occurs or the diabetes has been of long standing. One must be ever alert as the pregnancy advances through the second and third trimester for evidence of toxemia, polyhydramnios, and acidosis. When improvement does not promptly follow conservative therapy, termination of the pregnancy must be considered. The recognition of any of these complications is an indication for hospitalization and stabilization of the patient. If there is any doubt about the size of the infant, abdominal x-ray examination at about the 34th week of pregnancy will clear up this question. It will also in many cases disclose skeletal abnormalities, edema, and even death of the fetus.

The practice of delivering the diabetic mother before term has reduced the fetal loss by more than 50 per cent. There is some disagreement about the procedure by which this can be best accomplished and the most desirable time to terminate the pregnancy. These decisions must be made on the basis of each individual case and according to the judgment of the attending physician. Providing none of the above mentioned complications occurs, it is usually desirable to permit pregnancy to continue until between the 36th and 38th week. Cesarean section is the procedure of choice in cases of fetal oversize, malpresentation, cephalo-pelvic disproportion, or other obstetrical indications for abdominal delivery. It is usually to be preferred in the primigravida unless the cervix is one to two centimeters dilated and fifty per cent effaced. Then the membranes can be ruptured and a carefully supervised pitocin drip given. If there is any delay in the onset or progess of labor in such instances, it is safer to resort to cesarean section than to persist in attempts to induce labor medically.

Diabetic patients should be admited to the hospital from one to two weeks before the anticipated date of delivery for evaluation, stabilization and rest. Before delivery, whether abdominal or vaginal, one unit of plain insulin per G 1.0 of an intravenous infusion of 5 per cent glucose in water is started. The amount given should not exceed 3000 cc in any 24 hours. Ordinary insulin is continued for 72 hours postpartum, the dosage being regulated by the amount of urinary glucose excreted. Following delivery, there is usually a sharp drop in the insulin requirements, followed by a gradual rise to the level required before pregnancy occurred.

Regardless of their weights and despite their gestational age, infants born of diabetic mothers exhibit many of the characteristics of prematurity and should be treated as prematures. The airway and stomach should be aspirated and kept clear. They must be put in incubators to avoid chilling. They should be handled as little as possible. Antibiotics may be indicated. If there is edema, feeding may be withheld for 48 hours. If blood sugar falls to low levels, glucose can be given by vein or by mouth. If oxygen is required, it should be administered only as long as necessary but never in concentrations over 40 per cent.

It has long been recognized that pregnancies complicated by diabetes are accompanied by a significantly higher incidence of spontaneous abortions, premature deliveries, stillbirths, neonatal deaths, congenitally defective infants, large babies weighing over nine pounds, polyhydramnios and toxemia. It has also been observed that women who have a family history of diabetes, who are obese, or who have had repeated unsuccessful pregnancies due to the above catastrophes, even through not then overtly diabetic, frequently develop diabetes later in life.

Investigations made by the Diabetes Field Unit, Chronic Disease Program, United States Public Health Service[1] have shown that 8.7 per cent of 6,332 such women demonstrated a reduced tolerance to glucose when given glucose tolerance tests. After screening 14,998 pregnant women, the Diabetes Field Unit found 468 who showed positive glucose tolerance tests. Alternate cases of women with positive glucose tolerance were treated with insulin and a regulated diet to maintain blood sugars within normal limits. The outcome of the pregnancies of these women was then compared with the group with positive glucose tolerance tests

who did not receive antidiabetic management and with a group of normal women who were free of any of these suggestive factors of history, pregnancy experience or abnormal glucose tolerance. Table I illustrates the findings in this study.

nancy a less fearsome problem than it was formerly. With good management the diabetic mother can be delivered with no greater maternal mortality than that found in non-diabetic patients. The perinatal mortality can also be reduced to more satisfactory levels.

TABLE I. OUTCOME OF PREGNANCY IN MOTHERS WITH NORMAL GLUCOSE TOLERANCE, THOSE WITH POSITIVE GLUCOSE TOLERANCE TESTS, TREATED, AND THOSE WITH POSITIVE GLUCOSE TOLERANCE TESTS, UNTREATED.[2]

	Normal CHO Metabolism Per Cent	Abnormal Carbohydrate Metabolism	
		Treated with Insulin Per Cent	Untreated Per Cent
Normal infants less than 9 pounds	77	79.6	67.3
Abnormal outcomes	22	20.4	32.7
Live 9 lbs. or over	4.9	4.4	13.1
Live, congenital defect	3.8	3.3	7.0
Live, premature	10.3	11.0	10.1
Fetal death	2.7	1.7	2.5
Neonatal death	1.1	0.6	3.0

It could therefore be concluded, from the results of this study, that the birth weights, congenital defects and neonatal death rates of infants born to mothers with lowered glucose tolerance, can be reduced, by appropriate antidiabetic therapy to rates similar to those exhibited by mothers with normal glucose tolerances. The above mentioned study is still underway in order to acquire a yet larger series and also to determine how the incidence of overt diabetes later in life in the "insulin treated" group with lowered glucose tolerance, will compare with "the untreated" group with lowered glucose tolerance.

Summary

The principles of early, close, and alert prenatal care, skillful management of the diabetes, and early delivery have made the diabetes-complicating pregnancy a less fearsome problem than it was formerly. With good management the diabetic mother can be delivered with no greater maternal mortality than that found in non-diabetic patients. The perinatal mortality can also be reduced to more satisfactory levels.

To treat patients with lowered glucose tolerance as potential diabetics, with regulation of their diets and administration of insulin necessary to maintain a normal blood sugar level would be prudent. It would also seem desirable to perform glucose tolerance tests, early in the prenatal period for patients who give a family history of diabetes, who are obese or who have experienced previous catastrophic pregnancies, such as repeated spontaneous abortions, premature deliveries, stillbirths, unexplained neonatal deaths, congenitally defective infants, polyhydramnios or toxemia.

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New Drugs in the Cold War

We are now engaged in what is probably the greatest struggle between nations in all history. We call it the Cold War. It is a war that requires our efforts in many fields. In some, we have been most successful. One of these is the improved treatment of diseases. New drugs are an important factor in our success in this area. Our excellence in the treatment of disease may very well be decisive to the ultimate outcome. Surely our efforts should be directed to maintaining and increasing our leadership. This is no time for legislative changes that even create a possibility of retarding our continued progress. S. 1552 (Kefauver Bill) not only entails such a possibility but, in my judgment, would almost certainly do precisely this.—LOWELL T. COGGESHALL, M.D., Vice President, University of Chicago, to Senate Subcommittee on Antitrust and Monopoly.

Management of the Young Diabetic Patient

Part I

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THE TREATMENT of diabetes mellitus in the infant or child must be individualized. Nevertheless, there are some basic principles that apply to all such patients. It is our purpose to discuss these principles and to emphasize some of the important differences between the child with diabetes and the adult with the same disease. Considerable emphasis will be placed upon the education of the child and his or her family because it is felt that this has the greatest influence upon the future course of the disease and the acceptance of the disease by the family involved.

One of the most significant differences between the juvenile and adult form of diabetes mellitus is the rapidity of onset of the disease in the child. It is well recognized that many months or even years will pass during which the adult patient may have mild symptoms of the disease but which are not considered sufficiently urgent that the individual seeks medical attention. It is very rare for the child to manifest any symptoms for a period longer than three or four months before it is necessary to seek medical attention. The symptoms in the child are precisely the same as in the adult and consist of increased frequency and amount of urine voided, thirst and therefore increased intake of fluids, loss of weight and finally, increased appetite. Of these four cardinal symptoms of diabetes in childhood, the last or change in appetite is the least constant finding. In our experience, it is relatively rare that any infection, particularly skin infections, is associated with the onset of the disease and is a primary reason for bringing the child to the physician's office.

Of even greater importance in distinguishing the juvenile from the adult diabetic is the fact that the former may be considered a "complete" or "absolute" diabetic while the latter is usually an "incomplete" diabetic. These descriptive terms imply that within a period of approximately three to nine months after the onset of symptoms, most children will have exhausted any remnants of insulin production. On the other hand, the adult diabetic often has some residual ability to produce insulin and this may persist throughout the remainder of that individual's life. This factor is important for both the physician and the family to understand. This is the reason why the child with diabetes gradually increases his insulin requirements and this increase is roughly parallel in amount to the yearly growth that the child is undergoing during this period. At the time of adolescence, with the spurt of growth as well as sexual maturation, there is an even greater demand for insulin. Unless these factors are understood by the family there is often fear and a misinterpretation that the increasing need for insulin is an indication of increasing severity of the disease.

The fact that the child with diabetes depends almost entirely upon exogenous sources of insulin also means that his control is more difficult to obtain. This has led to the term "brittle diabetic" being applied to the juvenile patient. Extremes of hyperglycemia and hypoglycemia are certainly more common in the younger patient as compared to the adult. There are at least two reasons for this. One is because the balancing of insulin against diet and exercise must be somewhat more exact in the child. We could cite as an example that an average adult may be able to produce some 25 per cent of the insulin that his body requires. If, for some reason, there is a tendency for either hypoglycemia or hyperglycemia to occur he has a 25 per cent ability to modify these swings of his blood sugar by increasing or decreasing his total insulin supply by this amount. Since the child's insulin requirements are met almost entirely by that which is injected, he has no reserve to call upon to influence either a high or low blood sugar.

The constantly changing activity of most children also influences diabetic control and to a much greater

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extent than in the average adult. Muscular activity is believed to increase the efficiency of insulin or to modify carbohydrate metabolism in the direction of hypoglycemia to a greater extent than can be accounted for by the increased utilization of carbohydrate on the basis of the increased exercise alone. This activity will obviously effect the insulin requirements of the child. If he has an unusually active day his insulin requirements will be relatively less than if he has a day of relative inactivity. Therefore, the level of blood sugar and, consequently, the amount of glucose which appears in the urine will be influenced by such things as the season of the year, the weather, whether the child is in school or not and extra curricular activities at school. The relative control of a child may be quite different on a warm and sunny day than on a cold and rainy day.

These factors must be taken into consideration when one is attempting to treat the juvenile diabetic and these factors must be explained to the parent and older child in terms that they can understand. The control, in terms of blood sugar and urine sugar, will be less predictable and therefore less constant in the average child with diabetes than in the average adult with diabetes. Although this must be recognized by the physician who is treating the young patient, this does not imply that there must be or should be too great a relaxation on the part of the physician or patient or the patient's family in attempting to obtain the best possible therapeutic regimen. Although there may be many frustrating occasions for both patient and physician, patience and fortitude can overcome these vexing moments.

Education

There is certainly no more important part in the total treatment of the juvenile diabetic than the education of the patient and his family. In the author's experience, by far the greatest problem that he has encountered over the years has been that of overcoming misconceptions and misunderstandings of the pathologic physiology of diabetes mellitus. Part of this is undoubtedly due to the lack of time that many physicians have available to them when they discuss the disease with the family of the new diabetic. Although diabetes mellitus is not a rare disease, it is not common among children and many physicians see very few such cases in a total lifetime of practice. Though their interest may be of the highest caliber and their intentions are the best, they cannot spend the time necessary for a really adequate instruction to these families. It is also unfortunate that sometimes the identical principles used in the treatment of an adult are used for the child and there is the resulting frustration of entirely different results.

The following outline discusses the plan of the education of each new diabetic patient as seen in the Department of Pediatrics at the University Medical Center. This is usually divided into four separate periods, each one lasting from one to one and one-half hours. In addition, there are usually two sessions with the dietitian lasting for approximately the same period of time.

The emotional impact of the disease upon the average family is very great. Medical personnel are apt to overlook the importance of this aspect of the disease at this trying time. Proper preparation of the family will go a long way in helping to obtain complete acceptance of the condition and cooperation among nurses, physicians and the patient and his family. To put himself in the proper mood to approach this family, the physician might recall the anxiety and perhaps anguish that resulted when he first had to use a syringe and needle. If this caused a tremor of the hand, and few beads of cold sweat on the brow of the physician-to-be, it is not difficult to conceive of this causing even greater consternation on the part of parents or the patient at the anticipation of the use of insulin. In addition, there is frequently a family history and in the present generation one can recall some of the severe complications of the past generation that were so common and occurred at such an early age. Such an imaginary picture is often in the minds of the new patient and his parents. The whole idea of giving insulin, preparing a special diet and testing the urine seems overwhelming when this has never been done before.

Many parents have a guilt complex about the onset of the disease in their children and feel that in some way or another they contributed to the cause. Many parents will ask questions relative to diet preceding the onset of diabetes mellitus. They often feel that had a lower carbohydrate diet been insisted upon the diabetes might never have had its onset. Another question frequently asked is related to the treatment of infections preceding the onset. There may be the feeling that the child was neglected or that treatment was delayed for too long in such circumstances. It is important to emphasize that in our present state of knowledge, there is no method of prevention of the onset of the disease. (There are some indications that this statement may soon be modified, but until we are sure, it seems to the author unnecessary to plant

any seed of doubt in the minds of parents.) One should emphasize that whatever the parents did or did not do would not have any appreciable influence upon the occurrence of diabetes mellitus in their child.

In very simple terms, the physiology of carbohydrate metabolism and insulin are explained to the parents and to the child if he is old enough to grasp this. Most children over six years of age can at least understand some of the major principles and, therefore, are usually more cooperative if they are involved in the discussions at this level. The necessity for the use of insulin and diet and the fact that these must be balanced one against the other are stressed. The difficulties and failures of the oral preparations in the juvenile diabetic are discussed also. This subject is almost universally raised today and it is probably desirable for the physician to bring up this topic rather than waiting until the parents do so.

Some of the genetic factors are discussed with the parents and with the older diabetic, particularly if he is an adolescent. Our plan is to discuss these quite frankly and in terms of the most recent knowledge. One must be very realistic with these children and we certainly do not discourage them from the anticipation of raising a family. At the same time, it is emphasized that there are definite liabilities and that these should be taken into consideration when thinking about marriage and children. The fact that considerable improvement has been made in the treatment and care of all patients should be emphasized and the fact that further research is already in progress so that the outlook for a future generation of diabetic children is even brighter than that today.

We emphasize that there are only three factors that make the diabetic child different from any other child. (1) He does have to take insulin, but usually once a day and the total time involved in this is approximately four minutes. (2) The diet is changed little from what the child was eating before. It should be pointed out that the preparation of food for the diabetic patient will not be different than the preparation of food for the rest of the family. The child with diabetes can sit at the same table at the same time and eat the same food as his brothers and sisters and mother and father. Furthermore, within a relatively short period of time, he will be able to select the proper diet in almost any situation outside of the home. (3) The child must test the urine in order to see that there is adequate control or proper balance between the insulin, the diet and his daily exercise. Because the boy or girl has more irregularity of his activity and other less easily predicted factors as compared to the adult, he or she must test urine more often than most adults with diabetes. A minimum of three tests are carried out daily and it is desirable to carry out four tests daily. These are done before each meal and before retiring at night. Students in Junior and Senior High School who eat their lunches in the school situation may be excused from doing the noon specimen if this is embarrassing to them. Using the paper test material (Tes-tape), the test can be carried out in approximately one minute for each test. Thus, the child spends an average of eight minutes a day in the care of his diabetes mellitus, four minutes for insulin injection and four minutes for the urine tests. With the exception of these eight minutes a day he should be considered a perfectly normal individual. The normalcy should be emphasized again and again. Examples of well known athletes, scientists, lawyers and other people holding responsible and important positions who have diabetes can be used to point out the relatively few limitations that face the diabetic.

After the above general principles of diabetes are discussed, more specific details are then taken up. Brevity does not indicate lack of importance and these factors which are so much a part of routine to the physician need detailed discussion to the entire family. In this clinic, every child beyond ten years of age must have given himself an injection of insulin before he leaves the hospital. As a matter of fact, the majority of the children beyond the age of six are able to accomplish this quite satisfactorily without great emotional difficulty. At least one adult member of each family also must have given the child one injection before he leaves the hospital. In case of possible future emergencies, it is very helpful to have at least one other person in the home capable of giving insulin injections. In addition, the following matters are discussed and demonstrated: sterile technique, storage of equipment, types of insulin, storage of insulin at home and on trips, injection sites and the care and cleaning of equipment.

The use of the urine test charts is discussed in considerable detail because the average family can very well adjust the insulin dosage when this is necessary. For most of our children, we would like to have a trace to 1+ test four times a day. Very frankly, this is rarely obtained due to the factors which have already been discussed. However, we can often obtain an average which is not far from the ideal. The parents are told that there are five major reasons for the urine test being high in sugar content and these are:

1. A mistake in which an insufficient amount of insulin has been given.

2. Too much or the wrong kind of food has been eaten.

3. Exercise has been less than usual.

4. Some emotional disturbance has occurred.

5. Infection.

Any of these five changes may cause a rather abrupt change in the amount of sugar that is found in the urine. As a general rule, no change is made in the insulin dose when the change can be attributed to the first four of the above reasons. When, however, the change is due to number five, infection, the insulin is usually increased by approximately 10 per cent. As an example, if the seven-year-old child taking 20 units of insulin developed a rather severe head cold with an increase in his urine sugar test for most of one day, we would suggest that the following day he increase his daily dose of insulin from 20 to 22 units. If his tests are still relatively high the following day, another 2 units or a total of 24 units would then be utilized. Depending on our evaluation of the understanding of the family, we will allow three such increases to be made before we require the parent or child to call the physician for further advice. Our experience with this type of instruction has been very satisfactory. Once the infection has begun to subside there is a gradual decrease in the insulin dosage back to the original level. Occasionally it is necessary to supplement the longer acting NPH or Lente insulins, which are the usual type our children use, with regular insulin. This, however, is the exception and not the rule.

For several weeks or a few months after the diagnosis is first made, there is apparent recovery of the pancreas' ability to put out insulin. During this time the initial dose of insulin that was used when the patient was discharged from the hospital may be too great and cause mild hypoglycemic reactions. At this stage in the disease it is therefore necessary to warn the parents that the urine sugar may decrease and slow and gradual reduction in insulin dosage is therefore indicated. This is a transient phenomena and this fact should be realized by both the parents and the physician. Occasionally this reduced insulin requirement will last as long as a year after onset of the disease.

We have found that most parents and adolescents can quite readily understand the value of the urine test charts and are quite capable of regulating their own insulin dosage. Most important, it helps them to understand their disease better and to think about it in terms of the physiologic abnormalties which exist. They are taught to think about causes and effects rather than to act routinely in response to a particular level of blood or urine sugar.

A final discussion period is one that covers emergency treatment. By far the most important both as to frequency and as to the potential harm that it can do to the child in terms of brain damage is the insulin reaction. The causes of this are explained to the parents and child and the symptoms are elaborated. Personality changes, as a part of the picture of insulin reaction particularly with NPH and Lente insulins, are stressed since these are more common than the type of insulin reaction usually outlined in the textbooks. Such symptoms as hunger, sweating, trembling, et cetera, do occur with these insulins but seem less easily recognized than with the regular or PZI types of insulin. Using Lente and NPH insulins, the most common time of occurrence of an insulin reaction is in the late afternoon or in the early hours of the morning before breakfast. The dietary methods of prevention of insulin reactions will be outlined. Each patient is instructed to carry with him a lump of sugar (never candy) to use in case he feels any of the symptoms of an insulin reaction. If the sugar is used more often than two or three times a month, we feel that some corrections, either in diet or insulin, should be made to prevent this frequency. If there is a period of marked increase in exercise, such as an afternoon of swimming, ice skating or competitive sports, we suggest an increased protein intake in the meals or between meal feedings preceding or accompanying these periods of increased exercise. To use an example, if a child is receiving three meat equivalents* for his noon feeding, this could be increased to four or five in anticipation of an afternoon of markedly increased exercise. The protein increase is far superior to carbohydrate as it has a more sustained effect upon the blood sugar, and furthermore, it does not cause the extreme high level of blood glucose shortly after the feeding has taken place. This protein increase is added to the diet for that particular day.

Recently we have used glucagon (a polypeptide from the pancreas that elevates blood sugar) in the treatment of insulin reactions. Although its use is quite satisfactory, it is our impression that its greatest

*An equivalent is a serving of food sometimes referred to as an exchange, e.g., one ounce of brick cheese equals in protein and caloric content, one ounce of lean meat.

value is more psychological than it is in the actual treatment of insulin reactions. The fact that this material is in the home and is available and can be given by injection seems to be helpful in relieving anxieties built up in parents.

Diabetic acidosis is usually not discussed at any great length because it happens so infrequently. If the urine test charts are followed carefully, they will give adequate warning ahead of time when the patient is getting into difficulty. It is emphasized that while an insulin reaction can occur in a matter of a few minutes, diabetic acidosis and coma take hours or days to build up to a point of serious degree. Without exception, the patients that we have seen in the last ten or fifteen years, who have received their education concerning diabetes in this hospital, have returned to us in acidosis or coma only when they ignored doing their urine tests. This was usually in a home situation in which the child got little support from his parents or where other problems were present in the family.

So far as other illnesses are concerned, there is no reason why the diabetic child should not be treated in precisely the same way as the child who does not have diabetes. The use of antibiotics and various symptomatic methods of treatment are precisely the same. It is recommended that such things as cough syrups and medication in syrup forms be avoided and this can usually be accomplished with little difficulty.

We may summarize by stating that the patient and his family must have a healthy respect for the disease but they should not live in fear of it. It must be remembered that the treatment of the diabetic patient is a completely novel experience for him and, initially, it may be a very frightening one. The instructor must have the utmost patience and be willing to spend considerable time with both new and old patients. There is no substitute for a complete understanding of the disease with all of its ramifications, so far as the future physical and emotional development of the child is concerned. Above all, it is stressed that no boy or girl with diabetes mellitus should be considered a chronic invalid and never should they be allowed to use their disease as a crutch to accomplish any goal.

(Part II will appear in a subsequent issue)

Misuse of Public Funds, If True

If, as a member of Congress has charged, the Department of Health, Education and Welfare is printing and distributing literature promoting the Kennedy administration's program of health care for the aged, a definite misuse of public funds is involved. Although the Justice Department says that a preliminary review of the publication does not indicate any violation of the law, it would be interesting to have the department define just how far a government agency can go in advocating a politically motivated project at public expense.

The issue apparently is centered on an introduction in the booklet (which purports to explain the administration's program) by Abraham Ribicoff, secretary of Health, Education and Welfare. Mr. Ribicoff says he is authorized to explain the program since it involves changes in the Social Security law. His foes, Rep. John W. Byrnes, Republican of Wisconsin, and Dr. F. J. L. Blasingame, executive vice president of the American Medical Association, say it is an outright attempt at lobbying by a government official.

We'd suggest that the matter can best be settled by Congress, which has the authority to allot funds for publications such as the one under fire, and the power to punish those who misuse those funds. To be perfectly fair, Mr. Ribicoff has as much right to press for his program as his opponents have to fight it, but only if he carries on his campaign with private money. He certainly has no privilege to use taxpayers' funds, particularly when many people are against what he is trying to put across.—*Battle Creek Evening News*, May 11, 1962.

Studies in Oxygenation of the Fetus And the Newborn Infant

A Brief Review

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INVESTIGATIONS into the mode of oxygenation and the optimal oxygen requirements of the fetus and the newborn infant have obvious interest because of the critical needs for oxygen by all animals, and because of the importance of our understanding the normal occurrances during the time of birth when the lungs replace the placenta as the organ of oxygenation. We understand how oxygen is transported to the fetus, but our knowledge of his precise needs is deficient. We recognize that damage to the fetus and the infant can be produced by both hypoxia and excessive oxygen, but we have little information as to the exact levels that will produce damage.

Basic to the understanding of the physiologic transport of oxygen by blood is the comprehension of the oxygen dissociation curve of hemoglobin and the factors which influence this curve. This review of some of the investigations in the oxygenation of the fetus and the newborn infant will be limited to studies of actual measurements of hemoglobin oxygen saturation or blood oxygen tension.

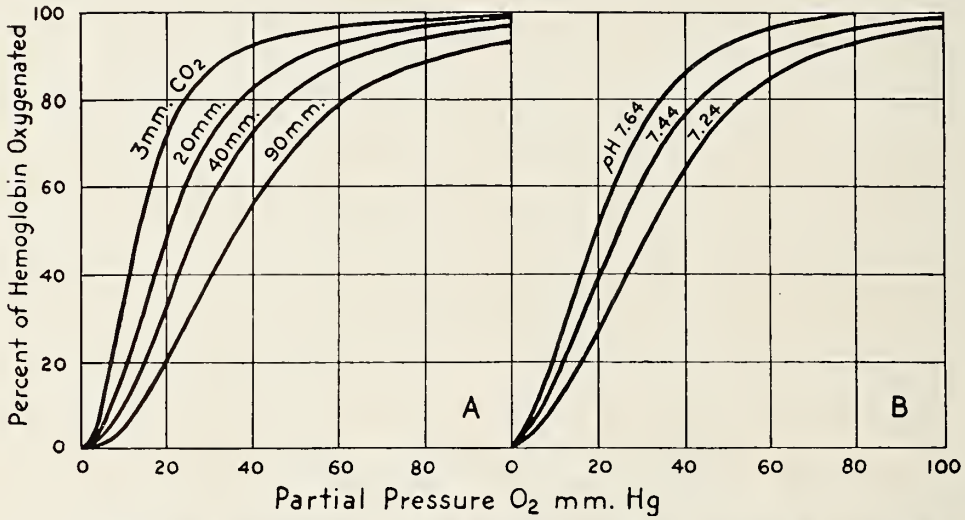


Fig. 1. Hemoglobin oxygen dissociation curves demonstrating pCO_2 and pH effects upon the position of the curve. The usual hemoglobin dissociation curve is represented by the curve at pCO_2 of 40 mm. Hg.

Factors Which Influence Oxygen Transport

The usual oxygen dissociation curve is represented in Figure 1, in which one can also see the pH and pCO_2 effects. Hemoglobin carries the greatest amount of oxygen, and only a small amount is carried in the form of dissolved oxygen in the plasma. (Blood containing 15.6 Gm. per cent of hemoglobin will have in each 100 cc. 20.9 cc. of oxygen combined with hemoglobin plus 0.3 cc. dissolved in plasma, at a pressure of 100 mm. Hg., 38° C, if the hemoglobin is 100 per cent saturated).[1] Hemoglobin does not become 100 per cent saturated until the tensions of oxygen are in the range of 400 mm. Hg.[2] The oxygen tension in the plasma of blood in the lung

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is determined by the partial pressure, or tension, of the gas within the alveoli. The tension of the plasma oxygen determines the degree of hemoglobin saturation, and thus the volume of oxygen carried by hemoglobin. As the oxygen tension of the plasma falls by moving to the tissues where oxygen tensions are lower, oxygen is released from hemoglobin to the plasma and hemoglobin desaturates. The major factors which influence the position of the hemoglobin oxygen dissociation curve are pH, pCO_2 (Fig. 1) and temperature. The type of hemoglobin is also significant. Fetal hemoglobin within the red cells forms an oxygen dissociation curve which falls to the left of the typical adult hemoglobin dissociation curve. This is shown in Figure 2. The positional difference of the dissociation curves for the two hemoglobins permits a greater uptake of oxygen by fetal hemoglobin than by adult hemoglobin at the same tension of oxygen. Because of the higher hemoglobin level of the newborn, a greater amount of oxygen can be carried by the blood of the newborn infant. Recognizable cyanosis requires about 5 Gm. of reduced hemoglobin per 100 ml. of blood, and in the newborn infant cyanosis does not necessarily indicate hypoxia.

Prior to delivery of the infant, oxygen reaches fetal tissue in the following manner. Maternal arterial oxygenation is related to the tension of the oxygen in the atmosphere the mother breathes. The oxygen tension in the alveoli of the mother is somewhat lower than in the atmosphere because of factors of pulmonary mixing and distribution of gases. There is also a small alveolar-arterial oxygen gradient. Oxygenated arterial blood from the uterine artery passes into the sinusoids about the placental villae where oxygen crosses the placental layers to the fetal blood and goes to the fetus via the umbilical vein. Most of the umbilical venous blood shunts through the ductus venosus to the inferior vena cava. Most of the inferior vena caval stream is directed through the foramen ovale where it enters the left side of the heart. From the heart, part of this blood goes to the head and the rest becomes desaturated with blood from the ductus arteriosus and supplies the rest of the fetal tissues. The superior vena caval stream is directed through the right side of the heart, and most of this blood is shunted through the ductus arteriosus. Due to the collapsed state of the fetal lung, there is a relatively small fetal pulmonary circulation. Fetal blood returns to the placenta via the two umbilical arteries.

Once the infant is born, the lung must replace the placenta as the organ of oxygenation. Recent work by Fawcett[3] and Obata[4] has demonstrated that total expansion of the lung usually occurs with the first few breaths. During the first breath, the greatest negative pressures in life are applied to the lung. With ligature of the cord and the first breath, the flow of blood through the pulmonary system increases. Cardiac hemodynamic pressures are altered and closure of the foramen ovale occurs, while increase in arterial oxygen tension closes the ductus arteriosus. The closure of the foramen ovale and the ductus arteriosus may not be complete for the first week or more of age as has been shown by Adams[5] and Condorelli.[6] During birth the infant goes from an environment compared to that at the top of Mt. Everest to that of the usual adult world more near sea level. The dynamic cardiopulmonary changes as well as circulatory changes must be adequate to continue oxygenation of the infant without interruption.

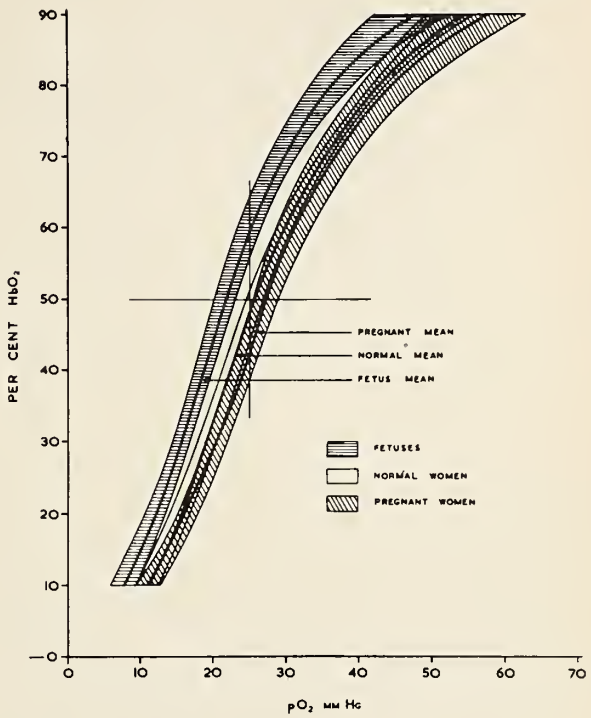


Fig. 2. Hemoglobin oxygen dissociation curves of the fetuses at birth, pregnant women, and normal women that are not pregnant. (Darling, Smith, Asmussen, Cohen: J. Clin. Investigation, 20:739, 1941.)

Hemoglobin Oxygen Saturation Studies

Because of the chronology in the development of equipment for the measurement of hemoglobin oxygen saturation and of blood oxygen tension, the early

investigations in the human infant were of hemoglobin oxygen saturation. Clamped cord segments are easily obtained, and removal of venous and arterial blood for analysis is simply done. Thus some of the early studies of newborn oxygenation utilized this technique. The reported levels of hemoglobin oxygen saturation in the umbilical vein and artery of normal infants of normal vaginal delivery are summarized in Table I-A.[7,8,9] It can be seen that normal cord blood hemoglobin oxygen saturations at birth are about 60 per cent in the umbilical vein and about 30 per cent in the umbilical artery. However, the values listed in this review are only mean values. James[10] has reported a wide range of values of hemoglobin oxygen saturation, of umbilical vein 10 to 97 per cent and of the artery 0 to 67 per cent. This data included infants in distress as well as normal infants, however, the degree of desaturation was not well correlated with hypoxia in the infant.

TABLE I. HEMOGLOBIN SATURATION STUDIES IN THE NEWBORN INFANT

Author	*Date*	*Study*	*Umb. V. % Sat.*	*Umb. A. % Sat.*
A. Umbilical Cord Saturations at Birth, Normal Infants of Vaginal Delivery.				
Clementson[7]	1953		63	31
Rooth[8]	1955 & 1957		61	34
Huraguchi[9]	1959		57	26
B. Umbilical Cord Saturations, Cesarian Section.				
Rooth[8]	1955	Gen'l Anesthesia	42	30
		Local Anesthesia	53	24
Clementson[7]	1953	Gen'l Anesthesia	43	11
C. Umbilical Cord Saturations, Toxemic Mothers.				
Clementson[7]	1953	Vaginal Birth	62	16
		Cesarian	15	5

D. Effect of Maternal Anesthesia on Infant Arterial Saturation at One Hour Age.

		Anesthetic Agent	*Arterial Saturation at One Hour Age %*
Taylor[11]	1951	Regional	85
		Regional, O_2 to infant	92
		Ether	79
		Ether, O_2 to infant	80
		Nitrous Oxide	81
		Pentothal	80
		Cyclopropane	72
Montgomery[12]	1956	None	84
		None, O_2	86
		50% N_2O, 50% O_2	84

Multiple events at the time of birth can be of influence in the degree of oxygen saturation of hemoglobin of infant cord blood. In Table I-B, the infants born of cesarian section[7,8] have a lower hemoglobin oxygen saturation than those of a normal vaginal delivery. The type of anesthesia is also important, and those infants whose mother's cesarian section was done under local anesthesia have higher umbilical vessel hemoglobin oxygen saturations than those performed under general anesthesia. Toxemia of pregnancy[7] results in lowered umbilical vessel hemoglobin oxygen saturation in both vaginal delivery and in cesarian sections as can be seen in Table I-C. The low umbilical arterial hemoglobin oxygen saturations in toxemia with cesarian delivery implies that the tissue levels of the fetus were particularly depressed.

Anesthesia to the mother interferes with oxygenation of the infant by depression of the infant and by decreasing the oxygenation of the mother. Two studies[11,12] are summarized in Table I-D, in which the effect of various forms of anesthesia to the mother upon the arterial hemoglobin oxygen saturation of the infant at one hour of life has been investigated.

A very interesting study by Crehan[13] has been relatively neglected in the literature. An ear oximeter was used to measure the rapidity of rise in the hemoglobin oxygen saturation after birth. The infants were checked at minute intervals initially, and then at longer periods until two hours of life. He found a rapid rise in hemoglobin oxygen saturation to occur within the first ten minutes of life to levels of about 82 per cent saturation, and then a slower rise to a level of 94 per cent saturation at two hours of age. This was one of the early studies of the rate of increase in oxygenation of the infant in the period following birth.

Blood Oxygen Tension Measurements

The fetus and newborn infant have both fetal and adult hemoglobin. Due to the shape of the hemoglobin oxygen dissociation curve (particularly in the flattened upper portion of the curve where small changes in oxygen saturations may represent large changes in oxygen tension), and due to the different positions of the fetal and the adult hemoglobin oxygen dissociation curves, measurement of blood oxygen tension is more informative of the degree of oxygenation than

is measurement of the hemoglobin oxygen saturation.

Information concerning oxygen tensions in early fetal life comes from a rather grotesque study from Sweden. Westin[14] obtained ten fetuses of 15 to 27 cm. from legal abortions. Umbilical venous and arterial blood was removed at intervals for blood gas measurement until the fetus died of asphyxia or exsanguination. He found that the oxygen tension of the umbilical vein was about 70 mm. Hg. and of the umbilical artery 15 mm. Hg. at the time of removal of the fetus. As would be expected, the oxygen tension fell while the carbon dioxide tension rose until death occurred.

Sjösted[15] studied a large group of infants at the time of birth, and he found the umbilical venous tensions to average 29 mm. Hg. and the arterial tensions 17 mm. Hg. in the normal infants of normal vaginal delivery.

Prystowsky[16] has been able to obtain intervillous sinus blood by percutaneous puncture over the placental site, in addition to obtaining maternal blood and infant umbilical vessel blood at birth, he found a maternal-fetal gradient of 21 to 29 mm. Hg. Vasicka[17] and the group at Cleveland did rather extensive studies on the mother and infant in mothers breathing room air at the time of delivery. The maternal-fetal oxygen gradients averaged 56 mm. Hg. They were able to increase the infant umbilical oxygen tensions in both artery and vein with oxygen administration to the mother. McClure[18] observed the effect of oxygen administration to the mother prior to delivery and found an increase in the umbilical venous oxygen tension at birth related to the duration of oxygen administration. These studies are summarized in Table II-B. Others could find no change in the oxygen levels of the infant at birth whose mothers had received oxygen.[10,20]

TABLE II. BLOOD OXYGEN TENSION (MM. HG.) IN THE FETUS AND NEWBORN INFANT

A. Blood Oxygen of Fetuses, 15 to 27 cm. Westin.[14]

Umb. V.	*Umb. A.*
70	15

B. Blood Oxygen Tension Measurements at the Time of Birth.

Umbilical Vessel Oxygen Tensions, Normal Infant, Normal Delivery. Sjöstedt.[15]

Umb. V.	*Umb. A.*
28.9	16.9

Maternal-Fetal Gradient, Intervillous Space, and Umbilical Vessel Oxygen Tensions at Birth. Prystowsky.[16]

Mat. Fet. Grad.	*Intervillous*	*Umb. V.*	*Umb. A.*
29.5	53	31	15
22	44.5	30	16
21.8	42.5	24	18

Oxygen Tensions of Mother and Infant with Mother Breathing Room Air or 100% Oxygen for Five Minutes Prior to Delivery. Vasicka.[17]

Material	*Room Air*	*100% O_2*
Maternal Artery	96.2	285
Intervillous Blood	33.1	46.7
Umbilical Vein	20.7	30.7
Umbilical Artery	10.2	15.5

Oxygen Administration to Mother and Effect on Umbilical Vein Oxygen Tension at Birth. McClure.[18]

Duration of O_2 to Mother (min.)	*Umbilical Vein*
10 or less	31.0
11 to 15	34.4
15 or more	40.0

C. Changes in Umbilical Artery Oxygen Tension After Birth. Oliver.[20]

Time (min.)	*Mean Umbilical Artery pO_2*
2-5	19.5
6-10	48.7
11-20	56.3
21-40	56.7
41-64	61.7

D. Arterial Oxygen Tensions, Infants and Adults. Graham.[21]

	Breathing Room Air	*Breathing 50% O_2 30 Min.*
Infants (4-48 hr.)	74	153
Adults	80	270

The information obtained from the above studies must be interpreted with the conditions of the observations. Umbilical cord blood at the time of birth cannot represent the oxygenation of the fetus within the uterus. During the process of delivery, the contractions of the uterus and the vaginal compression of the infant and his cord would act to lower the oxygen tension of the infant below that present prior to delivery. Thus the maternal-fetal gradients in the above studies refer to that present at the time of delivery of the infant. With oxygen administration to the mother prior to delivery, the infant's cord blood oxygen tensions were increased in both Vasicka's and McClure's studies. The degree of elevation in the infant is very slight when compared to the mother's arterial oxygen tensions. A recent report[19] from work in sheep has shown that 100 per cent oxygen administration to the ewe will cause placental vessel constriction and this will cause actual lowering of oxygen tensions in the

lamb, unless a vasodilator, as carbon dioxide, is also given. One wonders if this may also be true in the human,[10,20] and thus be responsible for the only slight increase in oxygen tension in the cord blood of the infant whose mother breathes 100 per cent oxygen.

With the delivery of the infant, it is important to know how quickly and effectively the lungs assume the function of oxygenation. Oliver[20] catheterized the umbilical artery of newborn infants and did serial measurements of arterial oxygen tensions for the first hour of life. His findings are summarized in Table II-C, and it is noted that there is a rapid rise in oxygen tension for the first 20 minutes with a slower rise in the next forty minutes. The infant lung expands rather completely within the first several breaths[3,4] and thus the arterial oxygen tensions rise rapidly after the onset of breathing.

Once the infant has adjusted to extrauterine life, the degree of oxygenation is still not that of the adult. Graham[21] studied a group of infants from 4 to 48 hours of life and found the arterial oxygen tensions breathing room air were slightly lower than adult values. Greater differences are noted with the breathing of 50 per cent oxygen for a period of 30 minutes. This is probably related to cardiac shunting and/or to pulmonary shunting in poorly ventilated areas. It is not yet known when the infant assumes the adult response to administered oxygen.

Blystad[22] has shown that the premature infant that seems to be normal and is doing well has a lower arterial oxygen tension that does the full-term infant. He did measurements in "normal" prematures and found most of the arterial oxygen tensions to be about 60 mm. Hg. This is expected since the lung of the premature is not as well developed as that of the full-term infant.

Continuous measuring devices are now available for measurement of blood oxygen tension. We have measured a group of adults with this device and found that the blood oxygen tension of the adult can vary considerably with the respiratory pattern.[23] We have also studied a group of infants under a year of age, and found their arterial oxygen tensions in quiet sleep to be fluctuating over a somewhat greater range, which also is directly related to the breathing pattern of the infant.[24] Infant respirations are more irregular than the adult.

Studies in Hypoxia

The effects of hypoxia in the adult are well known, where severe brain damage and death rapidly ensue. In animal experiments relative hypoxia in the early weeks of gestation produces severe congenital anomalies in the litters, with envolvement of those organ systems most rapidly developing during the hypoxic episode.[25] Multiple animal experiments have been conducted to show that fetal and newborn tissue is more resistant to hypoxia than is adult tissue.

In the human fetus and newborn infant, hypoxia has been suggested as the cause for cerebral palsey, mental retardation, convulsive disorders, et cetera. That the new born infant has some form of protective "anaerobic metabolism" has been studied and seems to be a fact. However, the precise degree of hypoxia that will produce damage in an individual infant is as yet unknown, and individual variation of the degree of such tolerance seems to be great.

Ingalls[26] has suggested that hypoxia may be a cause of congenital anomalies in the human. Anesthesia for surgical procedures in the early weeks of pregnancy was suggested as the responsible factor for hypoxia in several histories of mothers who produced infants with severe congenital anomalies.

Wenner[27] measured the oxygen tension of blood of the superior sagittal sinus in 67 infants in an attempt to assess the levels of oxygen tension below which hypoxic effects would be noted. It was found that the oxygen tension of cerebral venous blood was much lower than accepted values in adults, and that it was lower in the newborn infant than in the older infant. In adults, levels below 20 mm. Hg. produce unconsciousness, but in infants that are healthy, levels are normally close to 20 mm. Hg. Moreover, unconsciousness was not observed in infants whose cerebral venous oxygen tensions were as low as 10 mm. Hg.

Studies in Excessive Oxygenation

The ill effects of excessive oxygen administration have been recognized. Best known of these is retrolental fibroplasia in the premature infant. There is suggestive evidence that this may be a factor in hyaline membrane formation since such membranes are found in many animals exposed to high tensions of oxygen. Such direct evidence in the human is lacking. Oxygen at extreme pressures can inactivate enzyme systems containing sulfhydryl groups. It seems evident from animal and human observations that fetal and newborn tissues are more susceptible to high tensions of oxygen than are adult tissues. Much more work is necessary in this area to precisely delineate the ill effects of excessive oxygen administration.

Summary

Studies in oxygenation of the fetus and newborn infant are far from complete. Information concerning normal events is often isolated to a particular time in these periods of life. Investigations into fetal oxygenation of the human require that the normal state be modified by the conditions of the experiment. Animal studies in fetal life are not easily compared to that in the human because of placental differences. A few observations can be made however. During early fetal life, oxygen tensions as high as 70 mm. Hg. can occur in the umbilical vein which supplies the fetus. At this time the umbilical arterial tensions are in the range of 15 mm. Hg. Later as gestation progresses and the stresses of labor and delivery occur, the oxygen tensions of the umbilical vessels fall. At birth, prior to the first breath, the umbilical venous blood has hemoglobin oxygen saturations of about 60 per cent and oxygen tensions of about 30 mm. Hg., and these values in the umbilical artery are 30 per cent saturation and 17 mm. Hg. tension. The range of these values at birth is wide. Multiple factors adversely influence oxygenation of the infant at birth, and among these are Cesarian delivery, toxemia of pregnancy, and the type of anesthesia used. Oxygen administered to the mother before and during delivery might increase the oxygen supply to the fetus, but this increase is not great.

Once the infant is born and starts to breathe, the lungs efficiently and rapidly assume their function. Within the first 10 to 20 minutes, there is a rapid increase in arterial blood oxygen tension and hemoglobin saturation, and then there is a continued slower rise for the next two hours. With adaptation to the environment, the infant still does not possess an adult response to oxygen administration due to cardio-pulmonary factors. The premature infant has a generally lesser degree of oxygenation than does the full term infant.

Extremes of hypoxia and of excessive administration of oxygen can have deleterious effects. The precise levels of oxygen tension producing either type of damage has not been delineated. Some investigators feel that the normal process of birth must be considered as an hypoxic event, since the levels of oxygenation in the infant who is normal overlaps the levels found in the hypoxic infant. Usual clinical signs of hypoxia, such as cyanosis, are less useful in evaluating the newborn infant that is being damaged by the hypoxic event. It is probable that individual variation of tolerance to such effects must be great.

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(Additional references on page 1109)

Inguinal Hernia as a Cause of Colic In Infancy

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PHYSICIANS who care for children are confronted almost every day with the problem of the extremely fussy or colicky baby. The causes of this troublesome clinical constellation are numerous, as Ratner[1] has so aptly pointed out ". . . we might define colic as a protean disease not often due to proteins." Bartram,[2] writing in Nelson's Textbook of Pediatrics, describes infantile colic as a symptom complex of paroxysmal abdominal pain, presumably of intestinal origin, and of severe crying, occurring in infants of under three months of age.

Lee Forest Hill[3] stresses that crying is a protective mechanism and is the infant's way of calling for help. The following are but a few of the many causes of this crying in small babies.

Hunger, air swallowing, over feeding, carbohydrate or fat intolerance, allergy, intestinal obstruction, peritoneal irritation, psychological reasons, otitis media, and inguinal hernia[4,5,6]. This last cause, that of inguinal hernia, should always be considered in the differential diagnosis of colic. Its finding is directly related to the awareness of the physician.

From August 1, 1956 to February 28, 1961, we saw in our private office practice of pediatrics twenty-one infants below four and one-half months of age who were "fussy and cried a great deal," and who, in the authors opinion, were this way because of the presence of an inguinal hernia. During this same period only two infants, in the same age range, were seen with other surgical causes of abdominal pain. In all fairness, the authors must state that other babies were found with inguinal hernias that were apparently asymptomatic. All the patients had been followed by us from shortly after birth, and none of them had any previous disease entity such as meningitis or an otitis media, which might have made them basically irritable babies.

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The diagnosis of inguinal hernia was established at an average age of two months and repair was accomplished soon thereafter. There were twenty males and one female. Eighteen were full term babies while three were prematures. Nineteen had unilateral, right-sided hernia, while one had left-sided only, and another had bilateral hernias. There was one operative complication, that of wound infection. In the particular patient, this was not entirely a surprise, since cutaneous staphylococcal infection was present during the first month of life.

The results were extremely gratifying for not only the parents but also the physician. Of all the total group, seventeen were completely relieved of "colic," three had partial relief and one no change at all. When relief occurred it was dramatic, coming almost immediately after the hernia was repaired. It can be said that many of the babies were fussy even in the hospital the day or so before surgery.

In the group of nineteen infants with one-sided hernia, three developed contralateral ones within six months of surgery. The complete number to develop contralateral hernias is not known since the follow-up has not been long enough.

For the successful diagnosis and treatment of colic, a high level of understanding must exist between the physician and the parents.[7] This statement is even more important if an inguinal hernia is to be demonstrated. It has been our experience that the hernia was not always present on the initial examination, but sometimes several additional examinations were necessary before the typical bulge or thickened spermatic cord were appreciated. In more than a few instances, parents made the diagnosis at home. It is for this reason that we instruct all parents of "colicky" babies to watch the groin area during fussy spells.

While reviewing the histories of this interesting group of patients, we most certainly noted that the standard approach of low fat, low carbohydrate and no cows milk formulas were used. In addition, anti-

colinergics and barbiturates were prescribed. We are well aware of the Biblical quotation, "Let him who is without sin among you be the first to cast a stone."[8]

The following two cases are typical of the group:

Case 1.—J. D. was a 4-pound 8-ounce premature male infant who did well in the hospital nursery and was discharged at three weeks of age weighing 5 pounds 2 ounces. He was "a good baby" while in the premature nursery. At four weeks of age, he began to have a great deal of crying and passing of gas. Sedation was of no help. The mother noted a swelling in the right groin during one of the spells. The diagnosis of a right inguinal hernia was confirmed, and surgery was performed at six weeks of age. The results were excellent in that the baby became a "perfect child."

Case 2.—D. T. was a full-term male baby weighing 7-pounds 8-ounces. He did well on a cow's milk formula until two months of age, when the mother said he began to cry a great deal when being held and fed. Large amounts of gas were passed. The crying seemed to go away when the baby was placed in a reclining position. Upon examination, a small right inguinal hernia was discovered. The hernia was temporarly reduced in the office and the crying stopped at once, only to recur when the hernia was allowed to protrude. Surgery was done two days later and the child had no further "colic" following the repair.

Once the diagnosis has been established, early surgical correction should be carried out.[9] The view of some, that repair should be put off until the tissues and structures are larger, is not a sound one. With care, good repairs can be done at any age. Trusses only temporize, and help to eventually distort the anatomy. Delay allows incarceration and strangulation to be constant threats.

Summary

Twenty-one cases of colic associated with inguinal hernias are presented. Operative correction of the defect led in most cases to a rapid cessation of crying. The importance of always considering this anatomical abnormality in the differential diagnosis of colic is stressed.

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(Continued from Page 1107)

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Early Diagnosis in Hydrocephalus

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IN THE LAST FEW YEARS, techniques have improved for stopping the progress of hydrocephalus in babies. The most popular and successful one is the use of the "Holter valve" which directly connects the cerebral ventricles with the right atrium.

With this development, early and precise diagnosis becomes far more important, and requires more skill and responsibility for the general practitioner and the pediatrician who will inevitably be responsible for initiating diagnostic studies and treatment. If hydrocephalus may be corrected there is less optimism for success if the defect has been advanced to the point where irreversible intellectual damage has taken place. The compelling importance of early diagnosis and treatment to prevent such damage is obvious.

This article will not deal with the remedial surgical techniques, but only with diagnosis. Its purpose is to emphasize that in our urgency to make an early diagnosis, it is quite possible to do harm, either by unnecessary investigative techniques or by unnecessary therapeutic operations. The operation itself is by no means so harmless or so successful as ever to justify its use unnecessarily.

One of the least harmful, but still reprehensible effects, is to excite parents unnecessarily with unsubstantiated worry. We would all agree that a subdural tap, ventricular tap, ventriculography, are all traumatic and dangerous procedures that should be avoided if possible, even in our urgency to make an early diagnosis. We will try to outline the simplest and least traumatic step to define the indications for more expensive and traumatic procedures.



The Author
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With concern about the diagnosis of hydrocephalus, it is important to establish two things, (1) that there is actually macrocephalus, and (2) that the hydrocephalus is present and, at the time of our concern, progressing.

The first step in determining the presence of expanding hydrocephalus is to determine that macrocephalus exists by resorting to a tape measure and reference to tables of normal values for the circumference of the head at different ages. Determination that hydrocephalus is present and progressing needs a sequence of measurements and as exact a knowledge as possible of the rate of growth of the head at different ages and for different birth weights. To supplement further these observations, it is very valuable, when possible, to determine that there is abnormal elevation of intracranial pressure. The increased pressure necessary to cause hydrocephalus may be so small that it is hard to detect by any available procedure. However, when the pressure can be shown to be great, it is obvious that this makes the situation very urgent and one need not wait for sequential measurements to show that the head actually is expanding faster than the normal rate.

It must be clearly understood that hydrocephalus can correct itself, can be a self-limited disease. In one study of 182 cases in England, 57 per cent or 81,[1] became spontaneously arrested. Thus, many cases of hydrocephalus correct themselves at some time or other, even before irrevocable damage is done or before the realization occurs that hydrocephalus exists. It would be folly to institute the radical and rather cumbersome procedures available to correct something which has already corrected itself.

As in many problems in medicine, our first job is to have a clinical suspicion; to confirm this with as simple procedures as are possible, that are untraumatic and inexpensive; and finally, when necessary, to resort to positive steps which may be expensive and potentially harmful to establish a diagnosis. All this

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should be done only that the logical end of our study may justify remedial steps of a serious nature.

Clinical Suspicion, Appearance

When hydrocephalus is marked, the appearance is obvious and the diagnosis of macrocephalus can be made by inspection. In early hydrocephalus, simple inspection may be misleading, however. Many premature babies look as if they have big heads and, in fact, do have heads that are relatively big for their bodies and yet are completely normal. Our knowledge of the normal and its variations is essential. A tape measure and normal data are essential. In the appearance, one notices the so-called "sunset" eyes. This is where there is enough hydrocephalus so that the space between the orbit of the eye and the eyebrow is greater than usual. This appearance certainly is highly suggestive, though again, it may appear normally to some degree in some premature babies.

Measurement of Head

The routine and careful use of a simple tape measure is all-important. It is unfortunate that we do not have any way to measure intracranial capacity accurately, so the simple, crude measurement of the greatest circumference of the skull is as good as any measurement that we have. The measurement of the circumference of the head in all newborn babies and its repetition at frequent intervals during early infancy should be routine for good infant care. Measurements of anterior, posterior and lateral diameters of the skull have not been established so accurately that they are of any greater advantage than simply the circumference of the skull. It is easily realized that a long, narrow skull or any deviation from a circle gives us a greater perimeter for the area included than the perfect circle. This may slightly modify the interpretation of measurements.

Tables of normal data for head circumference exist in all text books of pediatrics. The basis for these tables should be improved. It is important to know more exactly the rate of increase of this dimension at different ages and for different birth weights. The head of the full term normal infant increases in circumference by about an average of one-half inch a month for the first five months of life and by an average of one-fourth inch for the rest of the first year. This is a decelerating increase so that each month's increment is less than the preceding month. Data for the over-sized newborn and for small premature infants have been unfortunately lacking, probably because until the last few years, critical figures for normal increment of head circumference in each month of early life was not important. Data on premature infants from Dr. Paul Woolley at the Children's Hospital in Detroit, have been made available and will be included here with his permission with some small changes.[2,3]

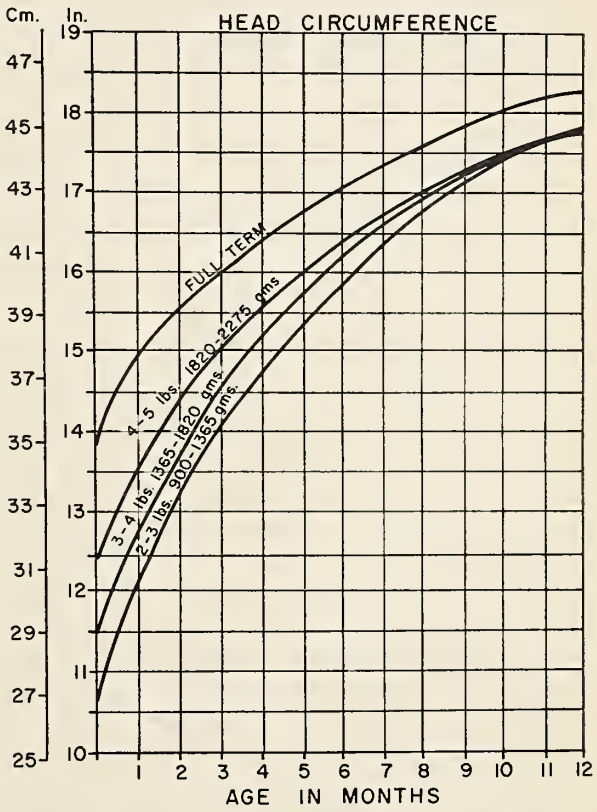


Fig. 1. Graph of head circumference in first twelve months of life. From Watson and Lowrey.[3]

There are a few traditional beliefs about normal in physical development relating to hydrocephalus that need discussion and clarification. All old text books include the statement that the head is bigger than the chest up to an age of ten months and then the chest begins to be bigger than the head. Although this is generally true, there are many variations from this. Obviously, pulmonary disease can make the chest smaller as well as larger. Obviously too, as the baby gets fat very rapidly, his chest becomes bigger because of fat, while the fat layer over the skull is not as great. As a whole, we can say that the comparison of the head with the chest is a most unreliable guide. Absolute measurements with the tape measure of the head, compared with normal tables, are more reliable. We must, in general, realize that the smaller the baby, the more rapidly the head will grow and

the larger it will be for the rest of the body, and the opposite is true of a large child at birth.

X-Ray of Skull

X-ray of the skull is usually demanded on clinical suspicion of hydrocephalus. It is worth doing to see if there is any calcification or erosion of bone, although it is usually not very helpful. Certainly, just to establish the existence of macrocephalus, a tape measure is cheaper and more accurate. Many use skull x-rays for evidence of separation of sutures. However, in the age group that we are concerned with, young infants under one year, this is not very reliable. There is considerable difference of opinion whether an x-ray can distinguish between sutures, once united, that have been separated and sutures that have simply never been united.

Exaggerated convolutional markings are also unreliable as any indication of increased pressure though they do occur more often with increased pressure. In general, we can say that though a simple x-ray of the skull is probably necessary, it is usually not going to be very helpful in the young infant.

Now, what are the signs of increased pressure? Of course a time honored one in infants is the palpation of the fontanelle. In young infants, it becomes far less valuable in simple hydrocephalus than we would hope. It is a very good observation in acute hydrocephalus and in meningitis, but in hydrocephalus resulting from congenital causes and in all cases of hydrocephalus that are slow in developing, there may be such slight increase of pressure that one cannot be convinced by palpation that pressure is increased. Certainly this field is open for better instrumentation.

Size of Fontanelle

A big fontanelle seems to entice one to the diagnosis of hydrocephalus but we should look on such a sign only with skepticism. The fontanelle varies hugely, and in itself its size cannot be used to indicate hydrocephalus. Normal sized head, with no intracranial contents, can be associated with huge and communicating anterior and posterior fontanelles.

Crack-pot Sound

The crack-pot sound, a traditional sound whose name describes itself, is very helpful to show slightly separated sutures, but again it is not helpful in the age where we need to consider operation for progressive hydrocephalus. It is not a reliable sign under two years of age. It can occur in babies whose sutures have not quite united as well as in those where they have just begun to separate under pressure, so it should not be relied on as a valuable sign of increased pressure during the age period that concerns us.

One must not forget the simple technique of transillumination, or "candling." A three-cell standard flashlight to which a rubber shield is attached so that light-tight connections between the flashlight and the skull can be made is the only instrument necessary. In a completely dark room, when one's eyes are adjusted, the transmission of light through dilated ventricles or other fluid-containing space, can often be seen. However, this is of use only when the collection of fluid in the brain is very great and the cortex thin. This occurs only when hydrocephalus with macrocephalus is so great as to be obvious, or when gross brain atrophy has occurred already with a small head. By this technique, however, hydrocephalus due to gross brain defect but without increased pressure and often without macrocephalus can be detected, though no question of operation necessarily need be entertained. Positive transillumination of the skull usually means, however, a situation where great brain deficit exists which will inevitably modify our decision as to what procedure to carry out. This procedure is such a simple thing to do that it should always be done in case of any question of hydrocephalus or in any question of gross brain defect in infants under three or four months of age. It must be remembered that ventricular dilatation, however demonstrated, may be due in whole or in part to brain atrophy and not to the accumulation of excessive fluid.

Now we come to more traumatic procedures for the establishment of need for an operation.

Direct Measurement of Increased Pressure

A spinal tap with the use of a manometer can establish abnormally high intracranial pressure, but with certainty only if the pressure is considerable and only if the technique is carried out so that the pressure is measured in a baby relaxed and quiet, with his head not flexed to the point of obstructing venous drainage from the skull. For other more potent reasons, a spinal tap is worth doing in many situations which will not be delineated here, but it will not determine always that the pressure is increased or not increased, and of course in cases of non-communicating hydrocephalus, it may not tell us anything. The risk of a properly done spinal tap, in this writer's opinion, is not great.

The next step in seriousness, and a decisive step, is the use of the needle with or without air injection in an attempt at a ventricular tap. The simplest thing of all to do is to tap a ventricle, obtain fluid, and

then withdraw the needle slowly, and note the point on the needle shaft at which fluid stops running from the ventricle. If this point is noted on the edge of the needle with one's thumb, and then the needle withdrawn the rest of the way, the thickness of the cortex is determined. This gives us a crude measurement of the distance from the skin to the ventricle and can well establish the fact that there is internal hydrocephalus. It does not establish whether it is communicating hydrocephalus or not, nor in itself does it establish that there is an expanding hydrocephalus as distinct from a deficit hydrocephalus resulting from brain atrophy. A normal ventricle is rather hard to tap and in a two months' old baby, for instance, one would need to inject a needle about 1½ inches to strike the ventricle. It is obvious that the angle at which the needle enters the ventricle could have an important effect on the measurement that is obtained by this technique. Ventricular tap in a small infant carries with it only a small risk but, of course, should never be done without serious consideration of its need.

Next, of course, is the injection of air with determination by x-ray of ventricular sizes. This certainly is a reasonable procedure. However, one must point out that if the "Holter valve" is to be used, its use is delayed due to the risk of air embolism. This delay may not be of great seriousness because pressure can be kept low by needle technique until the air has disappeared, but it does increase the cost of hospitalization and x-ray exposure, and sometimes it can be avoided. It again does not establish whether or not it is communicating hydrocephalus.

Although there is a difference of opinion about this, the use of dye injected into the ventricle and collected later from a spinal tap is, in this writer's opinion, unreliable. It is reliable of course when it is positive, when the dye quickly appears in the spinal fluid, but when it doesn't, we cannot assume that an obstructive hydrocephalus exists.

The use of a pneumoencephalogram, the injection of air into the spinal subarachnoid space, is the most decisive in determining whether there is a communicating hydrocephalus and whether there is a hydrocephalus. Even so, a considerable per cent of failure can occur and the procedure is of course traumatic. It is possible to have no air appear by x-ray after a pneumoencephalogram is done, to have none appear in the ventricle, and yet to have no obstruction to the free passage of air.

It may be emphasized again that the demonstration of enlarged ventricles in itself does not determine whether the condition is presently progressing.

Summary

Early and urgent attempts at early diagnosis of hydrocephalus in infants may result in both unnecessary psychic trauma to parents and physical trauma of a serious nature to children. The usual mistake is failure to resort to a tape measure and standard tables of normal in head size and with inadequate evaluation of birth weight relationship to head size. Another common mistake is an over-emphasis on small variations from normal and on traditional, but unreliable, signs of abnormality such as big fontanelles, the misinterpretation of separated sutures in young babies, of convolutional markings by x-ray, and failure to establish reliably that progressive abnormal increase in the size of the head is continuing at the time of our concern.

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Military Blood Program Agency Established in Washington

The Military Blood Program Agency, a new organization set up by the Army at the direction of the Department of Defense, has been established in Washington, D. C. This agency will coordinate and integrate the plans, policies and procedures of the military departments and the Unified and Specified Commands regarding the collection, processing and distribution of blood and blood products for medical use in emergencies.

The Army Surgeon General has been charged with establishing and operating the new agency. It will have a small staff of Army, Navy and Air Force officers.

Nephrotic Syndrome in Childhood

Diagnosis and Treatment

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THE NEPHROTIC syndrome may be defined as a disease state characterized by the presence of gross edema, marked proteinuria, severe hypoproteinemia, and hyperlipemia. In the majority of children no cause for the disease is found, and the diagnostic term, "nephrosis" or "idiopathic nephrotic syndrome" is applied. We prefer the designation, idiopathic nephrotic syndrome, for although not representing an advance in understanding, it identifies the clinical findings encountered and emphasizes the absence of a recognized cause. Therapeutically and prognostically, it is important to distinguish the idiopathic form of the syndrome from circumstances in which the syndrome occurs as a complication of other disease. For practical consideration, the many reported causes of the nephrotic syndrome may be grouped into five general categories: (1) Congenital form of nephrotic syndrome; (2) specific toxins associated with nephrotic syndrome, (3) nephrotic syndrome complicating systemic disease, (4) intrinsic renal disease, (5) and idiopathic nephrotic syndrome (nephrosis).

Congenital Form of Nephrotic Syndrome

In affected infants edema appears during the first year of life and may occur in the neonatal period.[1] The laboratory findings include those listed above, accompanied by hematuria. Renal function, as reflected by blood urea nitrogen, is not reduced early, but generally declines over subsequent months. Frequently, siblings manifest the disease, and recent studies[2] suggest an intra-uterine immunological reaction may be a causative factor. These infants respond poorly to all forms of therapy and usually succumb to infection or progressive renal insufficiency. Therapy with steroids (cortisone or its analogs) does not lead to improvement, but instead may be associated with further deterioration of renal function. Current therapy is directed toward relief of edema and control of secondary infection. Chlorothiazide alone or in combination with the aldosterone-antagonist (Aldactone®), is generally effective in controlling the edema. Antibiotics are useful for intercurrent infections, but improved protection has not resulted from continuous antibiotic administration. The basic program remains one of supportive physical care for the patient, and sympathetic but realistic counseling of parents.

Specific Toxins Associated With the Nephrotic Syndrome

On occasion, the nephrotic syndrome has been attributed to exposure to identifiable substances. These have included specific agents (trimethadione [Tridione®][3] or gold or mercury salts), as well as those of less defined composition (bee stings[4]). Development of the nephrotic syndrome as a complication of exposure to these agents is infrequent and is thought to represent an unusual idiosyncrasy. The nephrotic syndrome in these circumstances may develop insidiously or quite rapidly. In the majority of cases, removal of the offending agent results in improvement of the patient and disappearance of the syndrome. Since management differs and prognosis is generally good, the possibility of this form of the nephrotic syndrome should be considered when a patient is first evaluated. A careful history of recent medications and of exposure to foreign proteins is usually sufficient for purposes of differential diagnosis.

Nephrotic Syndrome Complicating Systemic Disease

Some systemic diseases may be complicated by the nephrotic syndrome. These include disseminated lupus erythematosis, diabetes mellitus (Kimmelsteil-Wilson syndrome), amyloidosis, anaphylactoid purpura, and venous thrombosis. The association is more frequent in adult subjects, but the occurrence in children is not rare. Generally, the symptoms and findings of the underlying disease predominate, but on occasion the com-

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plaints may focus upon those symptoms referrable to the secondarily-occurring nephrotic syndrome. The likelihood of a correct diagnosis depends upon awareness of the etiological possibilities in a nephrotic patient and application of appropriate diagnostic tests. For this group of patients, prognosis is usually similar to that anticipated for the basic disease. Generally, therapeutic efforts are directed toward control of the primary condition, and management differs for each.

For disseminated lupus, it has been reported[5] that intensive and prolonged therapy with high doses of steroids may be associated with regression of the renal lesions, and prolongation of life. Increased survival was evident only in patients with minimal loss of renal function at the time steroid therapy was begun. Although the complications of such treatment may be severe, drastic therapeutic efforts are appropriate for a disease in which fatal renal insufficiency frequently occurs.

A quite different outlook can be anticipated for patients with renal disease complicating anaphylactoid purpura (Schönlein-Henoch syndrome). Despite alarming symptoms and findings, prognosis for the nephritis is good with a recovery rate of 88 per cent reported for one series.[6] Steroid therapy does not alter prognosis nor duration of the renal component of the disorder and supportive therapy is indicated. In contrast, steroids substantially shorten the course of the articular and intestinal complaints[7] and may be indicated for these particular symptoms.

Thrombosis of renal veins with associated nephrotic syndrome is infrequently diagnosed antemortem in pediatric subjects.[8] The finding in a nephrotic child of other thrombotic phenomena, as gangrene in an extremity, may suggest the correct diagnosis. More commonly, renal vein thrombosis, presenting as acute renal failure, is found in infants or young children following an episode of dehydration. Recommended therapy is based upon use of anticoagulants as in other circumstances of thrombophlebitis.

The rarity of amyloidosis and Kimmelsteil-Wilson syndrome in children precludes useful comment on either diagnosis or treatment.

Intrinsic Renal Disease

The nephrotic syndrome may occur as a complication of acute post-streptococcal nephritis or during the course of chronic glomerulonephritis. In children with post-streptococcal nephritis, the nephrotic syndrome occurs early in the course of the disease.[9] The nephrotic stage is of short duration (less than 10 days), clinical and laboratory findings of acute post-streptococcal nephritis are evident, and prognosis is similar to that of typical acute nephritis. Therapy for acute nephritis in this circumstance need not be modified and steroids are not indicated.

In contrast, the nephrotic syndrome associated with chronic nephritis is more difficult to diagnose and to treat. This complex must be separated from the idiopathic nephrotic syndrome, for management and prognosis differ. Despite controversy regarding a distinction, electron microscopic studies of renal tissue obtained from children early in the course of these two forms of the syndrome demonstrate that glomerular changes differ.[10] In the idiopathic nephrotic syndrome, the primary alteration in glomerular structure is apparent only in the epithelial cell of the glomeruli and consists of a fusion in the epithelial cell extensions (foot-processes) lying adjacent to the glomerular basement membrane. In nephritis complicated by the nephrotic syndrome, proliferation of the endothelial cells of the glomeruli constitutes the predominant change. With prolonged disease, the difference is less evident, and a progression toward the typical mixed pathological alterations of chronic glomerulonephritis is observed. The findings observed pathologically correlate with the clinical impression that these two forms of the nephrotic syndrome are dissimilar in course and do, indeed, represent two different diseases.

In the presence of adequate clinical and laboratory evidence that the nephrotic syndrome in a child represents a complication of chronic nephritis, the program must be supportive, for specific therapy is not available. However, separation of patients with the nephrotic syndrome associated with nephritis from those considered idiopathic in origin is frequently difficult. Persistant hematuria and hypertension favor a diagnosis of underlying nephritis, but in the first few months of illness, the magnitude of hematuria and hypertension may be similar. Marked alterations in serum proteins and cholesterol are more frequent in the idiopathic nephrotic syndrome but again comparable deviations may be evident in either. Depressed renal function is common to both, while serological evidence of recent streptococcal infection is infrequent in either. Renal biopsy may provide a definitive diagnosis, but can be technically difficult in children. At times, clinical distinction is not possible. In such instance a course of steroids may be diagnostic as well as therapeutic, but caution should be exercised, for renal function may deteriorate further during steroid therapy in patients with nephritis. An absence of a favorable response, as reflected by diuresis and fall in proteinuria, following three to four weeks of steroid therapy is

usually an indication that further steroids will be to no avail. At this point a program of symptomatic management should be instituted.

Thiazide diuretics alone frequently will control edema. For chlorothiazide, we use 15-20 mg./lb./day in three to four equally divided doses, but rarely exceed 1.0 Gm./day. Since these drugs cause potassium loss, supplementary potassium may be required. If response is inadequate, addition of an aldosterone-antagonist may augment the effects of thiazides. For severe and unremitting edema, temporary improvement may be obtained by paracentesis or infusions of colloid osmotic agents (concentrated serum albumin or dextran). Moderate restriction of salt (800 mg. sodium diet) is sometimes helpful. More extreme limitations of salt intake, particularly if combined with thiazide diuretics, may lead to severe electrolyte disturbance.

TABLE I. APPROXIMATE EQUIVALENT GLUCOCORTICOID ACTIVITY OF FREQUENTLY USED STEROID DRUGS*

Triamcinolone	1.00 mg
Methylprednisone	1.00 mg
Prednisolone	1.25 mg
Prednisone	1.50 mg
Hydrocortisone	5.00 mg
Cortisone	6.25 mg
Dexamethasone	0.167 mg

*Modified from Brown, et al.[15]

During asymptomatic periods, we permit children to engage in physical activity as desired, but suggest that excess fatigue or strenuous competitive sports be avoided. Exacerbations of chronic nephritis may occur with either viral or bacterial infection. We believe prophylactic penicillin is valuable and use a program identical to that recommended for patients with rheumatic fever. Recognized infections developing despite such prophylaxis should be treated promptly with appropriate antibiotics.

Idiopathic Nephrotic Syndrome (Nephrosis)

The idiopathic form of the nephrotic syndrome constitutes well over 90 per cent of all cases encountered in children. It is thought to represent an auto-sensitivity phenomena, unrelated to associated disease or identified toxin. Pathologic changes, affecting the epithelial cells of the glomeruli, are evident only by the electron microscope. These alterations improve during a remission of the disease.[10] The clinical course is characterized by alternating remissions and exacerbations. Although some children recover spontaneously, an overall mortality of 50 per cent is observed in patients given only symptomatic treatment for edema. The prognosis appears improved since advent of steroids,[11] and is enhanced by their use early in the disease.[12]

Philosophy of Management.—Although the edema occuring in the nephrotic syndrome is disturbing and disfiguring, it should be regarded as only a symptom of deranged physiology. Loss of edema is less important to the patient's ultimate recovery than restoration of glomerular normality. Fortunately, loss of edema and improvement in glomerular structure and function usually occur simultaneously. The association is observed with measles, severe infection, or steroid therapy. Of the three, steroid therapy is more practical, and a favorable response to treatment will occur in more than 80 per cent of nephrotic children.[13] Induction of diuresis and loss of edema in this circumstance is accompanied by a decrease in proteinuria, improvement in discrete renal functions and in structural abnormalities of the glomeruli.[14] In contrast, loss of edema associated with administration of plasma volume expanders or diuretics is not generally accompanied by improvement of the basic disease state. Thus, steroid therapy is considered fundamental in current management of the idiopathic nephrotic syndrome.

Initial Steroid Therapy.—Steroids in sufficient amount to induce a remission should be given initially. Oral administration is effective and preferred. Since the minimum dose necessary is unknown, we empirically start a dose of triamcinolone—½ mg. per pound per 24 hours. Equivalent dosage of other steroids, as listed in Table I, may be used. If diuresis occurs during the first 10 days of steroid therapy we continue the same dose for a total period of 17 days. Step-wise reduction during the next 4 days terminates daily therapy, and intermittent therapy (infra vide) is begun the next week. Supplemental potassium chloride (2.0 Gm./day) is necessary only during continuous steroid therapy. Following the continuous steroids, we have found stimulation of the adrenals with ACTH unnecessary.

Alternately, if diuresis has not occurred by the 10th day, we increase the daily steroid dose by 50 to 100 per cent. Such therapy is continued for a total of 24 days regardless of diuresis. Step-wise reduction is accomplished between the 25th and 29th day and intermittent therapy is begun the following week. If a favorable response is not obtained with the above regimen, continuation of steroids seldom induces diuresis.

Hospitalization is advisable during initial therapy since infection, hypertension, electrolyte imbalance or other complications may develop in a subtle manner. Careful clinical observation is needed, for loss of well-being and anorexia may be the only evidence of infection during steroid therapy. The plasma concentration of sodium, potassium and chloride, as well as blood urea nitrogen, is determined at weekly intervals. Earliest reassurance that a favorable response will occur is a decline in proteinuria. This is evident only by serial measurement of total daily protein excretion. This procedure is not prohibitively complex for the usual hospital laboratory,[16] but requires careful urine collection.

Intermittent Steroid Therapy.—Relapses are reduced by continuation of steroid therapy; however, interrupted programs are equally effective and less hazardous than daily steroid administration. Steroids are given on three consecutive days of each week for a minimum of one year. The daily dose is ½ mg. triamcinolone/lb./day (or its equivalent). This dose is distributed throughout the day in three roughly equal portions.

On this intermittent program, exacerbations have been infrequent. Until recently, we had terminated intermittent therapy abruptly. Recurrence of the disease, however, correlated with cessation of steroid therapy in many instances. Therefore, we have modified our program to include a more gradual withdrawal of steroid therapy. This modification consists of administering the previous daily dose of steroids for four consecutive days of each 2-week period for a six-month interval. This is followed by administration of the same daily dose for four consecutive days of each month. This last phase is continued for six months and if signs of the disease are absent, therapy is then terminated.*

Detection and Management of Recurrences.—Early treatment is as important for a relapse as for the initial illness. The cause of relapse is not known and although respiratory infections have been implicated, the relationship is inconsistant. Since prediction remains uncertain, we concentrate upon early recognition of recurrence. This is first evident by return of albuminuria. We instruct parents in the technique of urine protein detection by sulfosalicylic acid or Albustix.® This test is performed routinely twice each week in the home. Transient proteinuria is occasionally encountered, appearing and disappearing spontaneously over a few days time, and need not cause concern. Proteinuria persisting beyond a week, without evident decline, is considered to indicate a recurrence. The presence of edema is not necessary for diagnosis of a relapse. Treatment is resumed at this time and follows the program outlined above for initial steroid course, and then progressing to the intermittent program.

General Supportive Management.—

1. *Diet.*—A regular diet should be given with the exception of moderate restriction of salt during times of edema. A normal protein intake is given unless renal failure is present.

2. *Activity.*—Physical activity need not be reduced beyond those limitations which the child places on himself because of edema. During remission, we allow youngsters to be as active as they wish, short of avoiding excessive fatigue. However, for the older boy, participation in competitive sports is limited with the intent of preventing undue fatigue during efforts to keep up with healthy peers.

During an exacerbation and a course of continuous steroids, bedside teaching should be suggested. At all other times, regular attendance at school is encouraged, for the disease is chronic, and circumstances precipitating recurrences are not defined. Although there may be an increased chance of intercurrent infection by school attendance, the opportunities to contract such disease from siblings or parents plus the advantages of a near normal life far outweigh the risk of potentially greater exposure to infection. Furthermore, continued emphasis upon disability and invalidism should be dispelled. The tendency towards over protectiveness by parents is frequent in this disease, and at times the physician must be insistent that the young patient be allowed as normal a life as possible.

3. *Antibiotics.*—We no longer use antibiotics except for recognized infections. Although therapy is begun promptly, continuous use of antibiotics has not in our experience diminished exacerbations or reduced complicating infection during courses of steroid therapy.

4. *Immunizations.*—Exacerbations have been reported to occur in association with routine immunizations. During long term observation of 50 nephrotic

*Michigan Chapter of the National Kidney Disease Foundation, Inc. (Office: 116 N. Adams, Ypsilanti, Michigan) provides a program for obtaining steroid drugs at reduced cost for nephrotic patients for out-patient use.

children, both with and without steroid therapy, we have encountered only one occasion in which a recurrence could be associated with immunization (smallpox). We therefore give routine immunizations whenever indicated except during courses of continuous steroid therapy. Intermittent steroid therapy does not, in our opinion, constitute a contraindication to immunization.

Circumstances Warranting Special Considerations.—Exposure to rubeola or varicella is considered an indication to modify the steroid program. For exposure to measles, we recommend a modifying dose of gamma globulin be given and steroids withheld during the active exanthem. For chickenpox, we discontinue steroids for the interval in which the exanthem is expected. Mumps and German measles cause no apparent difficulty and the steroid program is not changed.

Children with the nephrotic syndrome who require surgery and have received steroid therapy within the previous year should be given a daily maintenance dose of steroids during the period of anticipated stress. After an interval without steroids greater than a year, steroid therapy during stress is probably not required.

Summary

Differential diagnosis of the nephrotic syndrome in childhood is discussed. Therapeutic programs are outlined for the various forms of the syndrome.

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Medical Maxims

A positive cord Kahn test when the mother has had adequate prenatal antiluetic treatment is not diagnostic of congenital syphilis in the offspring.

•

It takes about six months for penicillin to change the positive serology of early syphilis to negative.

•

In a population with a high incidence of syphilis, serologic tests repeated during the last eight weeks of pregnancy may uncover recently acquired disease and thus eliminate congenital infection.

•

More tetanus spores are found in human feces than in that of horses.

•

Of two groups of approximately similarly aged women, those who are pregnant are more susceptible to poliomyelitis.—From *711 Medical Maxims II* by W. S. Reveno, M.D.

Detroit School-Community Behavior Projects

Brenton M. Hamil, M.D.
Howard M. Stitt, Jr.
Detroit, Michigan

THE DETROIT schools and enlisted representatives of agencies which are operative toward community social betterment have successfully evolved this project since the idea for its attempted establishment was first discussed in 1953. Very little information about its continued expansion and its successful accomplishment has been published because of the cautious discretion which seemed imperative to the successful infiltration of the idea originally intended; to benefit all participating organization representatives and particularly the children who were handicapped by school maladjustments.

The program has flourished through the interest and effort of many people representing diversified community minded disciplines. It is importantly unique and represents what can be accomplished in any similarly constituted community to help maladjusted problem children. It has been shown during the successful evolution of this project that individual cooperative effort can be stimulated and expanded by the representative interest of diversified organized disciplines in the community if there is established a well managed program which offers the opportunity to the individual for the expression of his own ideology in relation to social community betterment and if he can actively participate with the representatives of other disciplines toward the accomplishment of a common objective.

A project such as this may appear at first glance, as in this instance, to be a very hazardous and expensive undertaking faced with the time honored obstacles that might evolve because of the added job time responsibility of the school employed individuals and of the organized ancillary participants. Although these obstacles would seem to be apparent, they dissipate and disappear as the infiltration of a well founded idea extends and through well organized and efficient administration of effort, the evidence of benefits to all participating individuals and to the social community as a whole becomes apparent.†

Project Evolution

This project is a multi-disciplined approach through school and community resources to identify and treat as early as possible pre-puberty elementary school children who exhibit a major degree of anti-social and/or a-social behavior. The present program has evolved from the first conceived attempt in 1953 by representatives of the Detroit Board of Education and of the Detroit Commission on Children and Youth to institute a program which might alleviate the increase in juvenile delinquency. The plan as devised was to identify at an early age the delinquency-prone child and to work with this child by using *enlisted volunteer school and community resources.*[1]

This program has flourished through the interest and effort of many people representing diversified community-minded disciplines. The Poe and Burton schools were selected to pilot this project in January 1954. The voluntary effort of the members of the action teams of these schools during the next two years with the cooperative guidance of the Steering Committee, comprised of representatives of school and community organizations, launched this program toward the successful operation which it has now become.

Other schools were added to the project as voluntary interest in the program spread throughout the teaching personnel. Action teams for these schools, after inquiry, became organized according to the requirements of the handbook for the project which was compiled by the Steering Committee. There are now 19 schools with organized action teams cooper-

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Formerly, this was termed the Detroit School and Community Pilot Project for Reducing Delinquent Behavior.

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Howard M. Stitt, Jr., is Administrative Assistant, Director School Community Behavior Project, Detroit Public Schools.

†This program in the Detroit School Community owes its chief success to the very able and discrete guidance which was given to it at the time of its origin by Herbert D. Sullivan, then Divisional Director, Department of Attendance and Census, Detroit Public Schools. He retired February 1, 1960.

ating in the project. Three additional ones wish to be included in the fall, of which only two can be accepted because of the limited number of personnel available from cooperating community social agencies.

The Wayne County Medical Society was requested in 1956 to appoint a member to serve on the Steering Committee, to give orientation to problems relating to medical ethics, diagnosis of physical handicaps and to give guidance "to identify services which are needed, but are not now available."

Through the Child Health Committee of WCMS, medical consultants were enlisted to serve the action teams in schools convenient to their area of practice, when the action teams needed advice of a medical nature about a problem child. There are 12 Detroit pediatricians at present serving their neighborhood schools in this capacity. Four schools are in need of such service and volunteers will be assigned for these as soon as they are available.

This is a community service of which the WCMS can be justly proud. Fifty-four separate agencies have been voluntarily involved in the social community cooperative effort to help aid the approximately 700 children who have been directly serviced by this program. Benefits through associated influence is observed in many other children in the schools where action teams operate because of unidentified alterations in both teacher and child attitudes. This probably results because of the action team philosophy of cooperative effort to unravel and solve individual problems. A study made of 128 disturbed children in the program indicated that between January and June 1961, 55 per cent improved in scholarship; 64 per cent improved in effort; 82 per cent improved in behavior and 58 per cent on a total average of all marks. Those that showed no change were actually improved because prior to acceptance for study their marks were declining.

The time spent in meeting during this last year is representative of the type of participation given to this project in previous years. Six half days were given to regular Steering Committee and joint Steering Committee meetings. Four half days were spent in special committee meetings and two half days in Behavior Project work shop participation. Much other medically related effort may be effective by telephone consultation.

Child Health

The health status of a child is something that is relative to a number of considerations. These include his background of heritage; to some extent the background of economic stability of the family and of the community in which he lives; the efficient functioning of the various community services which he enjoys and his inter-family and inter-community personal social-emotional relationships which he develops. It would seem then that from the time of his conception he is the product of "happenstances" and continues to be so affected for better or for worse by elements in our social order with its progressively developing planned economy.

The identity of the "delinquency prone" child does not entail a direct approach for the identification of this individual child. There may be many contributory factors, of which failure to progress satisfactorily up to the level of anticipated ability in the learning situation may possibly be the most important one. The cause of this situation is not as simple as that of just determining I.Q. by psychological examination. Special abilities, special disabilities, interpersonal relationships, deprivations, problems of family morality and the general field of distorted emotions must be explored and evaluated. This project therefore must have the benefit of the cooperative efforts of many disciplines, and may involve the study of behavioral deviations generally in order to accomplish the primary objective, "the identification at an early age of the delinquency-prone child."

A check list of behavioral characteristics of individual children who seem to have deep-seated emotional problems, which has been devised by the Steering Committee and action teams, may screen out deeply disturbed children. These are outside the province of this project and can be so identified by action team review and referred, if possible, to the proper facility for further study and treatment.*

The school with the proper orientation of teacher personnel, as it is now constituted, can best recognize the progressively developing emotional disturbances in children most economically and within its present framework, but the cooperative assistance of other community specialty disciplines is necessary. This identification, however, has been stated to be a "process" rather than an act, one which might favorably affect the teacher's perception of emotional disturb-

*Much interest has been directed toward help for emotionally disturbed children in this area. The Detroit Commission on Children and Youth established that the minimum number of children in Wayne County requiring treatment was in excess of 10,000 per year. The existing facilities in 1958 could treat only about 975 per year or less than 10 per cent. The cost of the eventual care of these children when they ultimately need hospital care is 25 to 35 times greater than it would have been for clinic treatment.

ance from the behavioral pattern of the child and help to point the way toward corrective measures to be attempted.

Project Operation

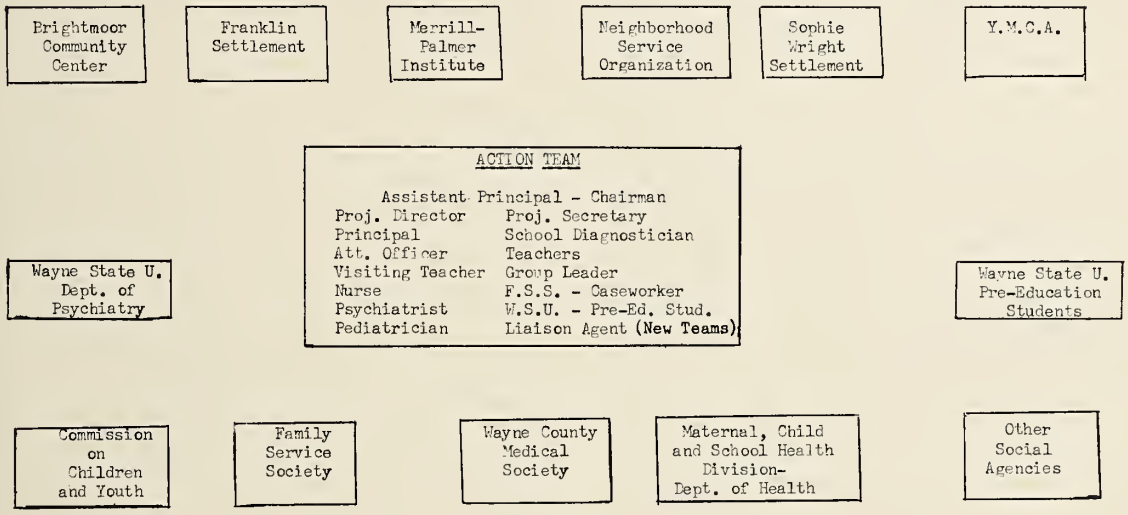
The question asked by certain Detroiters back in 1953, when trends in the incidence of juvenile delinquency were on the rise and people with concern for their community's future welfare began to take stock of resources available for action to alter the trend was the basis for the effort to establish this project: "Can children with vulnerability or tendencies toward problem behavior be identified at an early age, as early as the first several years in school?"

The joint effort to establish this project was attempted by the school system's Pupil Personnel Services Staff and various representatives of social agencies under the joint sponsorship of the Detroit Public School Management and the Detroit Mayor's Committee on Children and Youth.

The purpose of the project as has been mentioned is to find as early as possible troubled elementary (pre-puberty) school children who exhibit anti-social and/or a-social school behavior** and to make available school and community resources to work with the children and their families in order to resolve the behavioral problems. This is accomplished through the medium of an action team which meets once a month.

The action team is composed of the assistant principal, who acts as chairman, attendance officer, visiting teacher, public health nurse, psychiatrist, Family Service caseworker, group worker, psychologist, two teachers and a secretary. In addition to these specialists, pediatricians, volunteering for the Wayne County Medical Society, and Wayne State University students provide auxiliary services (Chart I).

CHART I. COMMUNITY SERVICES PROVIDED THE DETROIT-COMMUNITY BEHAVIOR PROJECT



The following report of the case of John Doe indicates the process by which children are selected, the services that are rendered and the behavioral adjustment that frequently results:

John Doe, nine years of age, in the third grade, was recommended in March, 1961, for action team consideration by his teachers, the principal and assistant principal. The action team decided after careful study that John was in need of immediate help.

The teacher's comments at the time were:

"General unhappiness, lack of self-control, bullies and picks fights, extremely poor behavior, hostile towards teacher and children, resents being told what to do and picks fights with the line captain."

"When asked why he didn't want to stand in line, he said, 'only babies stand in line.'"

"In October, he was in a fight with a girl. He said the girl called his mother something. About the time the teacher entered the classroom, he had a chair up going to hit the girl on the head."

"He said to Mrs. Bennett, 'I am going to get you for having me transferred to that classroom.'"

The individual psychological examination indicated an I.Q. of 85. An emotional problem was evident from his responses to certain parts of the test.

A social history was prepared on the boy and his family

**Anti-social—refers to hostile, aggressive or destructive behavior unacceptable to the school or community environment.

A-social—refers to the behavior which is withdrawn, isolated or non-participating in the social sense for that age level in the school or community environment.

in order to understand what had happened and was happening in the home.

The action team recommended these services:

1. Group therapy by the Neighborhood Service Organization.

2. Individual interviews with the visiting teacher.

3. Wayne State University student to tutor John in his difficult subjects.

4. Current teachers to keep an anecdotal record of his behavior in class.

5. School nurse to check the boy's knee infection.

6. A physical examination to be given at Children's Hospital.

At the end of three months, the action team recommended termination of John's case on the basis of these reports:

"A noticeable change in John. No longer dominates the class; fits in well and cooperatively. No longer argues or tries to get attention through unusual remarks. He has become more friendly. He is more sunny and happy. He has rare moments of insight when he verbalizes evaluations about himself, but always with good humor. He is neat and tidy, is enthusiastic about class activities. His mental ability seems higher than the I.Q. rating."

"Mr. Benson, the visiting teacher, said 'it would seem that a miracle had occurred in his behavior.'"

Three months to accomplish this tremendous change seemed too short a time for the gains to be maintained. However, in the fall and as late as February, 1962, this boy was carrying an A citizenship and a scholarship record of A's and B's. His marks in the beginning were D in citizenship and C's and D's in academic performance.

All project cases do not make such a rapid change. It is usually a longer period, sometimes as long as two or three years, but more of the children adjust than do not. A consolidated statistical report is given of action team accomplishments for the school year beginning September 1960 through June 1961 (Table I).

TABLE I. BEHAVIOR PROJECT

Consolidated Statistical Report—September, 1960 through June, 1961

Total number of cases handled by action teams (This involved 12 schools for the entire year and 2 schools beginning February, 1961.)	128
Average number of cases per year, per team	9.8
Total number of cases by sex:	
Male	116
Female	12
Total number of cases by grade at time of entry to project:	
1B	8
1A	11
2B	6
2A	16
3B	13
3A	14
4B	11
4A	17
5B	10
5A	9
6B	3
6A	4
RR	5
Sp. A, Jr. Sp. B and Jr. Ungraded	1
Average grade level of children in regular grades	3A

Total number of cases by age:

5	2	10	19
6	15	11	11
7	18	12	11
8	22	13	2
9	28		

Average age of children at entry to project	8.8
Total number of Wayne State University Students involved directly with project children	69
Total number of Agency referrals since children entered the program from project to cooperating agencies	699

This represents a study made last year of the school adjustment, as measured by scholastic, effort and citizenship marks, of the 128 project children considered by the action teams. The children in this study were checked as to their school grades prior to the time they entered the project and at the end of the February through June, 1961, semester. Most of the children who did not show improvement were continued under action team consideration until such time as improvements were shown. The results of this study indicated that 56 per cent of the children showed definite improvement in 1961.

Another study completed by a student from the University of Michigan in December, 1961, indicated that teacher's attitudes toward problem children changed as a result of participation in the project and that the children themselves improved in their school relationships as a result of the changed attitudes of these teachers.‡

In the belief that the School-Community Behavior Project is an effective tool to accomplish the indicated values, its members believe that it should be included in all of the Detroit elementary schools.

This school centered approach, we believe, will be seen eventually by all school systems as an effective

‡Milan Stitt, a student in Educational Sociology, Univ. of Mich., explored the "attitude" deviations of teachers faced with the problem of a maladjusted pupil. It was evident that teacher attitudes affected the pupil's emotional reactions and vice versa. It was evident, however, that the presence of a project action team in the school resulted in a beneficial orientation of the teacher toward her own and pupil problems and perhaps a more tranquil atmosphere because there was knowledgeable help available to her untainted by individual known "pet peeves."

means of helping children attain their highest potential for participation in a democratic society.

Discussion

The concept that the health appraisal of a school age child encompasses an inventory of all of his individual assets as well as his potential or actual handicaps is quite generally recognized by physicians in America. Much effort has been directed toward devising a brief, but all inclusive school health appraisal form which taken in its entirety will give a total health picture of the child as a whole person. The examining physician who fills out this health appraisal form for the school assumes a considerable degree of responsibility in regard to its subsequent value when it is reviewed by an action team of the Detroit School Community Behavior Project or some other person or group for information needed about the total health of the child.

Emphasis has continuously been given for the action teams in this project to give concern in their evaluation of an individual child's behavioral pattern to minor health problems which may have directly or indirectly caused him to function below normal potentials, or to the presence of a major defect which represents a specific disability. The child's past experiences or his present need for health care, either physical, nutritional, developmental, emotional or social should be of much concern to his teacher in her appraisal of his educational progress. An awareness of the child's special abilities or special disabilities in relation to the learning process may be of immense importance to the action team appraisal of the possible cause for developing behavioral maladjustments. The voluntary enlistment of pediatrician consultants to serve the action team schools in this project is an important acquisition to its successful growth toward measurable accomplishments.*

It is recognized that there are many gaps which impede the efficiency of operation of the action teams toward the accomplishment of the needs of this project. It is expected that this first attempt at comprehensive appraisal of the values and needs of the project will set the stage for a more uniform establishment of this program throughout the Detroit schools and for the acquirement of necessary appropriations or fund grants for greater efficiency in its operation. Evidence of the establishment of its value is the over-all enthusiasm which has been engendered among the school personnel who have asked for the extension of Detroit School Community Behavior Project benefits to their schools.

*Mr. Thomas Traynor, Assistant Principal of the Franklin School and former Action Team Chairman for this school has taken a leave of absence and will conduct comprehensive evaluation of the School Community Behavior Project as a partial requirement for a doctoral thesis under the supervision of Dr. John Lee, W.S.U.

Obesity, Social Class and Mental Ills Related

Obesity is more prevalent among persons of low socio-economic circumstances and is associated with certain mental disturbances, a study of 1,660 New Yorkers shows.

"Obesity is seven times more frequent among women of the lowest socio-economic level than it is among those of the highest level; among men the same relationship exists, although to a much lesser degree," Mary E. Moore, Ph.D., and Albert Stunkard, M.D., Philadelphia, and Leo Srole, Ph.D., Brooklyn, N. Y., reported in the current issue (Sept. 15) of the *Journal of the American Medical Association.*

Some 30 per cent of the women in the lowest socio-economic category were obese and this percentage tended to decrease with increasing socio-economic status until, in the highest socio-economic status category, only 4 per cent were obese, they said.

Although previous investigations have suggested a relationship between obesity and social class, they said, "this is the first controlled study, as far as we know, that has demonstrated it."

The data which formed the basis for these conclusions were collected as part of the Midtown Manhattan Study, a comprehensive survey of the prevalence of mental illness, the authors said. The segment of the population involved in the overall study was a group of 110,000 men and women between the ages of 20 and 59 who occupied a certain residential area of New York City, they said.—*AMA News Release,* September 14, 1962.

Successful Preschool Vision Screening In Michigan

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THE PROBLEM of partial blindness in youngsters remains serious. Even after years of excellent school screening a sizeable number of boys and girls are still doomed to go through life as one-eyed individuals. Teachers, school authorities, parents, nurses, and physicians understand the problem, but most of them don't know what to do about it.

Amblyopia, or a lazy eye, begins to develop when an eye is not used. This may begin at birth or sometime during the first three years of life. The reason may be poor alignment or poor optical quality of one eye. In many cases both factors are present.

When a child has a crossed eye, regardless of degree, only one eye at a time can be used for seeing. The simultaneous use of both, when the visual axes are not parallel, results in double vision. Because such diplopia is distressing, a child soon learns to ignore the picture seen by the crossing eye. This ability to control double vision is a reflex developed in the brain. It is automatic and involuntary and soon becomes deep seated. In fact, if a child is permitted to use this reflex without interruption until seven years of age, vision is usually permanently lost in the crossing eye.

Similarly, if one eye has a high refractive error—is more far sighted, near sighted, or astigmatic than its fellow—normal vision is not stimulated to develop because the picture seen by such an eye is too blurred or out of focus to be utilized in conjunction with the clear picture seen by the other eye. These conditions are usually congenital, and unless corrective glasses are prescribed early, the amblyopia becomes deep and permanent just as in the case of crossed eyes.



The Author
ROBERT T. BLACKHURST, M.D.

Some children, of course, will have both of the above mentioned defects. The refractive error with resultant poor vision removes the child's ability to use both eyes together. Fusion does not develop normally as it should during the first few years of life, and the affected eye begins to cross. Such crossing may be intermittent at first, but will soon be permanent.

Just as we, as physicians, are wrong when telling a parent to disregard a "slight" crossing of the eyes because "most children out grow it," so again we are wrong when not searching out and treating youngsters who have a lazy eye for another reason. The end result of our negligence or lack of understanding in either case is a permanent visual cripple.

For more than 15 years Michigan has had vision screening in the schools under the direct supervision of the local health departments. In many areas, the Massachusetts battery of tests is given every two years with Snellen testing on alternate years. When such tests are run by trained technicians as certified by the Michigan Department of Health, vision screening is at its best. Even so, experience has shown that some cases of needless permanent visual impairment still exist. Usually, the reason is the age-old medical problem—"disease discovered too late for adequate treatment."

Amblyopia must be discovered and treated early. It becomes deeper and more permanent with each day after onset. This is particularly true when the problem exists at birth or begins soon thereafter. In most such cases, when the lazy eye is undiscovered and untreated until the age of seven or eight years, improvement is all but impossible. Permanent visual loss is then an irreversible fact.

The Michigan Department of Health has been doing something about this problem. Since December, 1957, they have been carrying on a very successful form of preschool vision screening. The program is administered through the local health departments, and seven thousand children have been examined since the first of this year. These have been exclusively three and

four year olds; children who are one or two years away from vision screening in kindergarten. There has been a 6 per cent failure rate, and of those failed, 95 per cent have been found by the eye doctors to be in need of eye care.

This percentage of accurate referrals marks the new form of screening as much more than a pilot study. It is, indeed, a very successful procedure which the Michigan Department of Health plans to make a permanent part of its state-wide program.

Several features of this program make it outstanding.



Fig. 1. Michigan junior vision screener. (Manufactured by Good-Lite Co., 7426 Madison Street, Forest Park, Illinois).

1. It employs technicians trained and certified by the Michigan Department of Health. These women are usually nurses or teachers associated with local health departments, and interested enough in vision to spend time and effort in becoming trained and certified. Each of them knows children and children's eye problems. To remain certified they must take refresher courses each year. Much of the success of any vision screening program stems from use of these carefully trained and conscientious technicians.

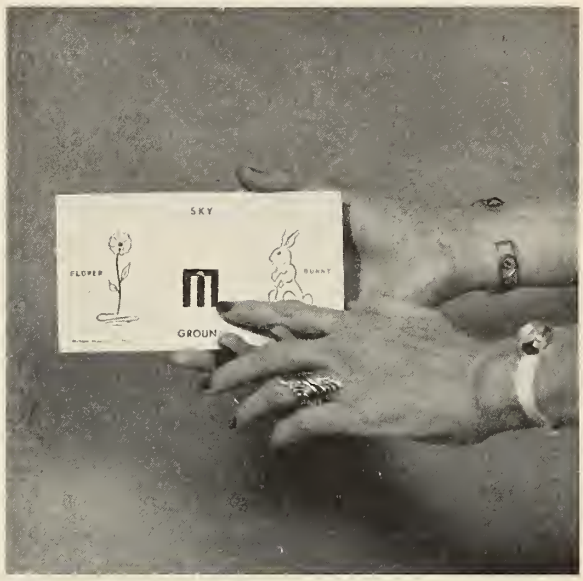


Fig. 2. Michigan home training device.

2. Half of the 6 per cent who fail are children who have a family history of eye disease or personal signs or symptoms suggestive of eye problems.

3. The only objective procedure is a Snellen type designed specifically for preschoolers. It consists of 20/40 E's for use at 20 feet and 20/20 E's for use at 10 feet. The device called the Michigan Junior Vision Screener is self-illuminating and has an easily portable tripod standard. It is adaptable to most school rooms or doctors' office areas.

So that screening may be smooth and rapid, the children to be examined are previously trained at home on small reproductions of this chart. Miniature reproductions of the chart are sent to the children's parents prior to the screening. Instructions are on the back of the card telling parents how to play a game called "The Table That Points." The suggestion is made that the parents hold short practice periods by playing this game with the child for several days so that he becomes familiar with the E (table) and learns to tell the direction in which it pointed before he comes to be screened.

It is encouraging to see three and four-year-old children perform this test with confidence and enthusiasm, and statistics prove the accuracy of their responses.

4. Parents also are convinced. They see the results and find that most referred children really do require treatment. They are certain of the goal of the program and the fairness of the technician. Two factors here are worth emphasis.

(a) The use of a technician from the local health department, rather than an eye doctor or other person with a vested interest, places the program securely among many others as a part of the continued effort of the Michigan Department of Health and local health departments to promote good health and health habits among school children.

(b) The screening program is simple and brief and in no way interpreted as a complete eye examination. The average child is screened in three to five minutes. Parents are not confused by the presence of professional people or extensive equipment, and their children enjoy rather than fear the experience.

(c) The decision to limit the program to Snellen testing and technician observation was a wise one. Adding other tests would locate a few more children requiring eye care, but would result also in many more needless referrals. Screening of school age children has shown us that 92 to 95 per cent of children failing the Snellen test actually require eye care. In contrast, when the same children are given the Massachusetts battery of tests, only 85 per cent of those referred actually require professional treatment. Experience also has shown that over 50 per cent of all children who fail the Massachusetts battery fail Part I which is the Snellen test. Part 2 of the regular Massachusetts battery, as used on school aged children, tests for hyperopia. In the three to four-year-olds we are not so concerned about hyperopia if vision is good in each eye and no observable sign of eye disease is manifest. Hyperopia, which might later cause reading fatigue, will be found on later screening. Part 3 of the Massachusetts group of school vision screening tests is a phoria test. Horizontal and vertical phorias are measured, and even in older children a fair number of "needless" referrals seems to result. By "needless" I refer to the fact that many of these children, once failed, are not found to require treatment when seen by an eye doctor. The very nature of phoria screening makes it of questionable value in preschool children.

Doctor, why don't you join us in this successful search for impaired vision. Acquire and use one of our proven methods of screening three- and four-year-olds. Children will respond; parents will be pleased; and you will be performing a never to be forgotten service for about 5 per cent of your young patients.

Hunting Safety

The fall hunting season is here again and millions of Americans of all ages and both sexes are taking to the woods and fields, gun in hand, bent on bringing back a loaded game bag.

Firearms, from a single-shot .22 calibre rifle to a heavy big game weapon to a fast-shooting automatic scattergun, are designed to kill birds and animals. They also can kill or wound humans.

Each fall several hundred hunters don't return alive and thousands of others return with a load of bird shot or a rifle bullet to be dug out. Behind almost every hunting accident is one cause: carelessness.

Before you pull the trigger, know what you're firing at, says *Today's Health*, the magazine of the American Medical Association. The hunter who blazes away at everything that moves runs a big risk of bagging a fellow hunter.

Never cross over or through a fence or climb a tree with a loaded gun. It might fall and discharge. Unload first and reload after crossing. Don't shoot at a hard, flat surface. Ricochetting bullets can carry long distances with killing power.

Keep guns away from children. Never leave a weapon unattended without unloading it. Store guns and ammunition beyond the reach of youngsters, preferably under lock and key.

Always carry a gun so that you can control the direction of the muzzle even if you stumble. Keep the safety catch on until ready to shoot. Always be sure the barrel is clear of obstructions. A barrel clogged with mud or snow may burst.

Guns and alcohol don't mix at all. If you like a nip around camp, wait until you're through hunting for the day and all weapons are unloaded and in cases.

Treat guns with respect at all times. They may be loaded, despite all precautions. Thus, never point a weapon at something unless you plan to shoot it.—Health and Safety Tips from the American Medical Association.

Thalidomide and Pharmaceutical Manufacturing

Thalidomide has just made the public press in a spectacular manner with reports all of a sudden of many babies born with deformities or without arms or legs. So far in America, there have been very few specifically reported and traced; however, there are some in Canada and perhaps hundreds in Europe. Women in the first few weeks or months of pregnancy have been given the drug as a tranquilizer and many months later have produced deformed babies. The drug had been released in Europe for some time and apparently did relieve the aches and allow the women to sleep.

The drug was held up in America by Dr. Frances Kelsey, Federal Food and Drug Administration, because she was not completely satisfied with all the tests and reports to the effect that it would not be harmful. Pharmaceutical companies have made every effort to withdraw the drug from the physicians who had been selected and asked to observe its use prior to its marketing. While not advertised to the public, this has been the procedure with new antibiotics and pharmaceuticals. Occasionally, one drug firm or another withdraws a pharmaceutical preparation which it has been selling.

Almost all pharmaceutical houses are put to tremendous expense in research and study and sampling to develop new drugs and new preparations. Medicine has been advancing by leaps and bounds for many years, and some of those advances have been the development of completely new drugs, new antibiotics, new antihistamines and new forms and more acceptable methods of using older drugs. Research costs millions and that must be regained by the sale of their products—notwithstanding Senator Estes Kefauver and his committee.

Thalidomide is the latest and most publicized sample of one of the costs of the pharmaceutical business. There was undoubtedly much investigation and research to develop this rather complicated pharmaceutical, and then it all has to be recalled and destroyed at another tremendous expense. Pharmaceutical houses have been doing this every few months and we have occasionally reported that such and such a drug has been withdrawn from the market.

Safety of Prescription Drugs

During the past 25 years of discovery, testing and marketing of today's phenomenally effective drugs, techniques for detecting possible toxicity in every known body system have been devised and improved by scientists within the pharmaceutical industry and elsewhere.

The possibility of drug effect upon the unborn child has not been



neglected. But not until the appearance of the deformities attributed to thalidomide has this tragic effect been widely recognized.

Few of the practicing medical profession have ever seen a case of phocomelia and, in fact, the word itself usually has not been a part of the physician's vocabulary.

Thus the recent catastrophic appearance of malformed babies reportedly associated with the drug thalidomide was due to a lack of scientific knowledge and not to a deficiency in the law. Protection against the unknown cannot be legislated.

The problem of predictability of this and other forms of toxicity of drugs continues to be subject to intense scrutiny by pharmaceutical research scientists. While some 7,500 of these are located in the drug industry, thousands more are at work in consultation with the industry, or independently, or under government or other private auspices.

Testing of drugs in industry before they are marketed is extremely thorough. For example, the Pharmaceutical Manufacturers Association estimates that its member firms made use of nearly nine million animals in 1961, including 5.7 million mice, 2.2 million rats, 739,000 chickens, 107,000 guinea pigs, 98,000 rabbits, 36,000 dogs and 18,000 cats and thousands of other birds and animals. At the conclusion of the final stage, only one out of an estimated 3,000 compounds originally synthesized by the pharmaceutical manufacturer survives as a drug.

(Selected from *Pharmaceutic Comments*)

Changing Laws

The reaction to Thalidomide has been activity from the Federal level to amend or change the Federal Pure Food and Drug Laws, in an endeavor to prevent other harmful drugs being introduced. Many changes have been mentioned, including some from Senator Estes Kefauver.

Just what is wrong with the present law? While Europe, and even Canada were being exposed to this new drug, which does the things it was intended to do, but has the deforming side capacity, our U. S. law did prevent sale of it in the United States. Sampling was done, and recalled.

The claim has been made frequently that the Medical Profession was too slow in adopting and using new discoveries. The new plans would slow the process.

During the last federal election campaign medical care of the aged became a sounding board, with plans and promises. The accomplishments of the medical profession in that field were completely ignored. For many years Blue Shield had covered all who could enroll, with no dropping because of age. The profession finally succeeded it getting the Kerr-Mills Act passed, giving aid to the needy aged. Michigan's Governor claims the K-M act is not working, and cannot work. The administration in Washington says it cannot work and gives that statement as reason to force the King Anderson bill into consideration. The Kerr-Mills bill is working in many parts of Michigan —where it is allowed to work.

The attempt to substitute the King-Anderson bill for this one which could work is another sample of changing laws. The Senate vote of 48-52 recently merely gives the profession a breathing spell. That bill will not come up for consideration in the present Congress, but will be among the first reintroduced in the next Congress.

The medical profession is put on guard again. Every one should know how his candidate will vote before election time—after might be too late. This whole Medicare program and whether we are to be as independent practitioners has not been buried.

The September Journal

As has been our custom for many years, individual issues of THE JOURNAL have been devoted in whole or in part to some special interest of our members. It may be some segment like a County Medical Society. It may be some special activity of the State Medical Society—The Clinical Institute, or the Annual Session. It may also be some scientific interest of members, as cancer. This issue is gladly devoted to the subject of Child Welfare.

We are indebted to Robert H. Trimby, M.D., of Lansing for invaluable cooperation and assistance in selecting and gathering the papers for this issue. We most heartily thank him for his willing and able help.

We would like to add our sincere hope that an ever-increasing percentage of our membership attend this annual session. We know some of the unusually valuable new facts, ideas, messages awaiting us. For years, we have been especially impressed by the importance and value of our offerings. We have imported men of renown from far away places, but our own contributions are just as acceptable.

Opinions Concern Audit Committee, Allied Professions

The following two legal opinions of Lester P. Dodd, MSMS legal counsel, were reported to and approved by the MSMS Council at its July meeting:



LEGAL OPINION 1131

Dear Doctor,

Because of the legal implications involved, your letter addressed to D. Bruce Wiley, M.D., Secretary, asking clarification of the MSMS Statement of Policy re Allied Health Professions and Services in Hospitals, has been referred to me for reply.

I can understand, and to a degree share, your apprehension that physicians, under the principles referred to, will have a greater potential legal liability arising out of the maltreatment of patients admitted and supervised by them than would be the case were such patients to be admitted and cared for exclusively by members of allied health professions with the physician having merely the status of a consultant. I believe, however, that such increased risk was recognized and calculated in the adoption of the principles and its assumption believed warranted in the interest of the best patient care.

If a doctor admits a patient, assumes responsibility for obtaining history, examines the patient, prescribes medication or treatment and supervises his medical care throughout his stay, the physician must necessarily be legally responsible, to the same extent and under the same principles of law as are applicable to the relationship of physician and patient generally.

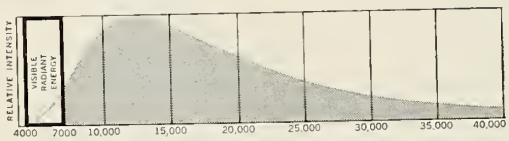
I do not believe, however, that this implies that the physician must necessarily be legally liable for any untoward occurrence or result suffered by the patient during his stay in the hospital. Certainly the physician would be legally responsible were the patient to suffer harm as a result of an incomplete or inaccurate history, a negligent examination or diagnosis, negligent or improper treatment, or failure to furnish adequate supervision during the patient's stay. I do not believe, however, that the physician would ordinarily be held liable for the act or neglect of one over whom he did not have the right of regulation or control.

The example suggested in your letter may be used to illustrate the above observations. A patient is admitted for dental extractions. The extractions are done by a dentist of the patient's own choice and presumably after adequate patient consent has been given. The patient aspirates a tooth into the bronchial tree or subsequently develops an osteomyelitis of the jaw. Thereafter the patient consults a lawyer and brings an action for malpractice. If the action were based solely on the negligent acts or omissions of the dentist, it would be my opinion that the physician would not be held liable. If, however, the wrongdoing encompassed fault in history, examination, treatment by the physician, or failure to give proper medical supervision, the physician might well be held liable either alone or jointly with the dentist.



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In short, it is my opinion that the physician does not, within the comprehension of these principles, become an insurer of the safety and well being of the patient while in the hospital or an insurer of the competence of the dentist, but does have responsibility for that which he does or supervises or fails to do or supervise.

Summarizing the situation as I see it:

1. The physician will, from a practical standpoint, have a greater *exposure to lawsuits*, first, because he will be admitting more patients and, second, because, even though he may not actually be responsible for the acts of another, and may not be held liable on trial of the action, he will be quite likely to be joined as a defendant because of the patient being under his general care and the unwillingness of the attorney to take the risk of omitting him as a defendant.

2. The basic principles governing a physician's liability to a patient are not altered or enlarged, but,

3. The physician must realize that his admission of a patient, even though primarily for the purpose of having treatment from a member of an allied health profession, is not merely a perfunctory act performed for the purpose of complying with a hospital rule or regulation but requires him to exercise the full degree of care and skill that he owes to any patient.

Sincerely yours,
LESTER P. DODD
Legal Counsel

* * *

May 29, 1962

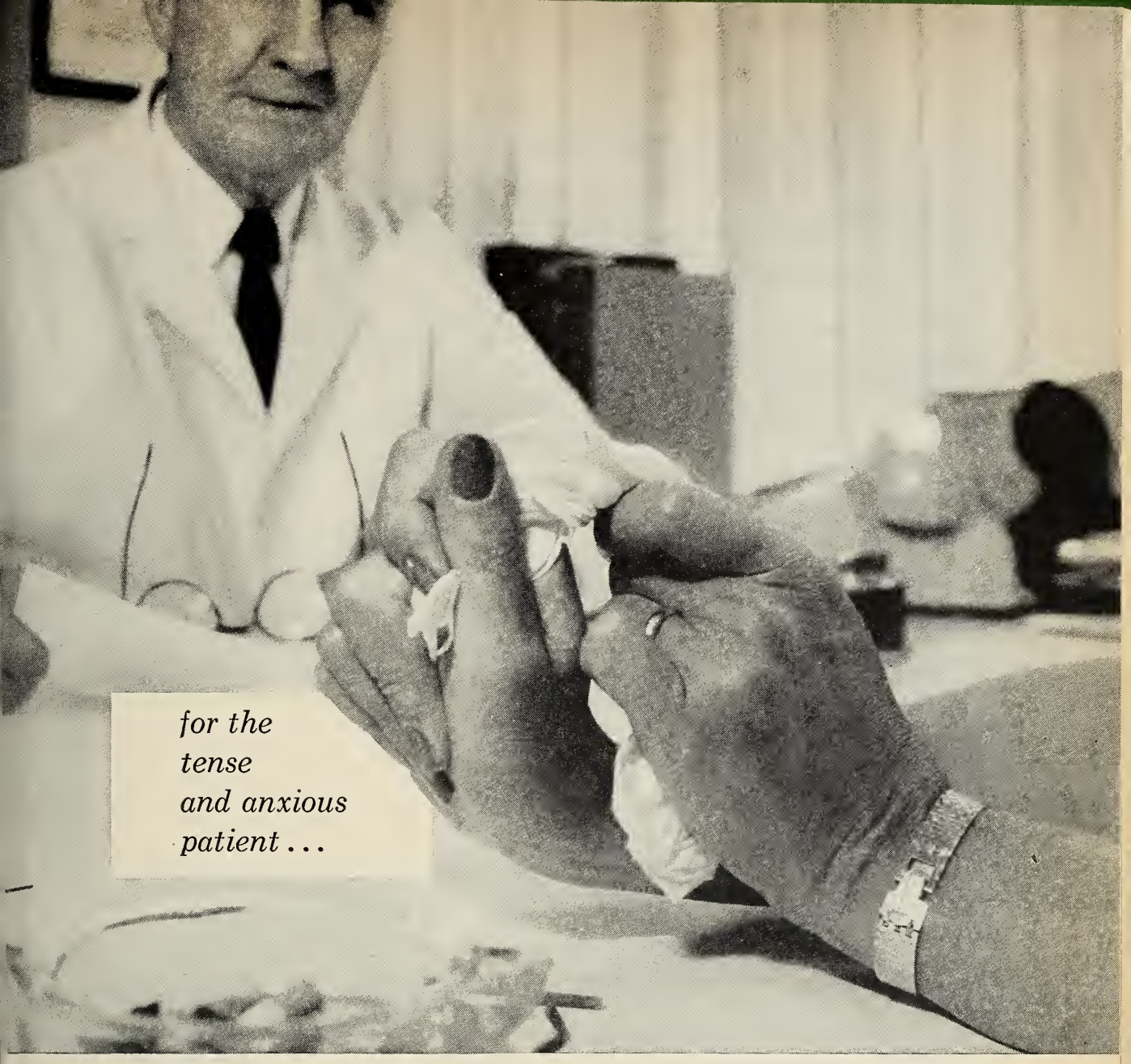
Gentlemen:

Since I have received, almost simultaneously, letters from each of you on the same subject, I take the liberty of addressing my reply to you jointly.

Although I am basically sympathetic toward the aims and objectives of your special committee, I cannot avoid the conclusion that giving the power to a staff committee to summarily discharge a patient or to order an attending physician to do so upon pain of losing staff privileges, presents some substantial legal hazards. I am sure, from the comments you expressed, that it is obvious some of these legal dangers have occurred to you.

In my opinion, an audit committee concerning itself with length of stay and which operates as a review committee *after* the fact, with power to discipline staff members who have been guilty of overhospitaliz

(Continued on Page 1134)



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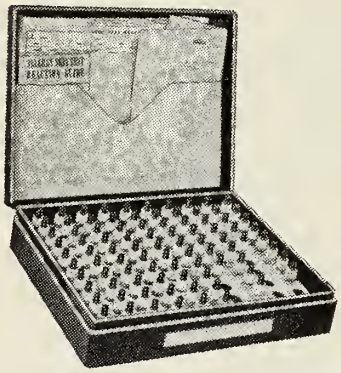
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(Continued from Page 1132)

ing patients, is on generally sound ground. When, however, a committee, in advance of discharge, attempts to substitute its medical judgment for that of the attending physician and to either summarily discharge the patient or order the attending physician to do so, its members may well become the target of lawsuits either at the hands of a patient or of a doctor who has refused to acquiesce in the overruling of his medical judgment. In short, it is one thing to review a doctor's cases after discharge and to criticize or discipline him for having overhospitalized, and quite another to step in before discharge and assume the responsibility for discharging a patient when the attending physician has failed or refused to do so.

I do not mean to suggest that every such action would result in liability or promote a lawsuit but certainly it would put the members of the committee in the position of assuming responsibility for any discharge which might later be questioned as premature.

In addition to the heavy burden of responsibility which would thus be placed on the members of the committee, it occurs to me that there might be serious question as to whether malpractice insurance carried by the doctors comprising such committee would protect them under such circumstances, since their actions might well be regarded as performed in the course of hospital administrative duties rather than in the care or treatment of a patient.

It is suggested in your letters that possibly the members of such committee might be given the status of consultants to the attending physician and thereby be in a position to insist upon discharge after actual examination of the patient. It seems to me, however, that the prime difficulty there would lie in the necessity of obtaining the patient's consent to engaging consultants. I am of the opinion that when a consulting physician is brought into a case, a physician-patient relationship is created and this requires the consent of the patient.

Much as I dislike to discourage practices which have as desirable objectives as those contemplated by your committee, I cannot escape the conclusion, that a committee cannot practice medicine and therefore cannot safely assume responsibility for treating or discharging individual patients, although, certainly, there can be no valid objection to their functioning as review committees, after the fact, including, in appropriate cases, disciplining doctors whose practices in relation to overhospitalization have been inconsistent with proper practice.

Sincerely yours,
LESTER P. DODD
Legal Counsel

Say you saw it in the Journal of the Michigan State Medical Society

To Head Commission On Drug Safety

Lowell T. Coggeshall, M.D., a leading U. S. medical scientist and vice president of the University of Chicago, is the chairman of the prescription drug industry's new Commission on Drug Safety. Dr. Coggeshall is former president of the American Association of Medical Colleges and of the American Cancer Society.

The Commission was established by the Pharmaceutical Manufacturers Association in an attempt to broaden scientific knowledge regarding predictability of action in humans of the potent drugs likely to emerge in the future.

Dr. Coggeshall explains, "The basic purpose of our commission is to study the broad and complex problems of making available to the public, with adequate safeguards for both the doctor and the patient, the therapeutic advances which will result from the enormous programs and rapid pace of medical research.

"Nearly a billion dollars is being invested annually in the U. S. in medical research. A major part of this is being directed toward new chemical agents of the most powerful type. In contrast with the simple compounds of an earlier era in medicine, these new agents can affect basic biological processes through genetic or metabolic mechanisms.

"The rate of pharmaceutical industry research spending has quadrupled in the past ten years," according to Austin Smith, M.D., president of the PMA. "A substantial portion of this money goes into testing of new drugs to assure their safety before being offered for human use. This is a very expensive procedure. For example, a thorough safety study of a single drug in animals can cost upwards of $100,000. It has been estimated that the average new product requires five years of preparation and an investment of five million dollars."



British Doctor Describes Weaknesses In State-Financed Medical Programs

(Excerpts from address made by John R. Seale, M.D., Richmond, England, before the Detroit Press Club)

The provisions of free medical care reduces the risk of financial ruin for the individual through illness. But a system which provides it brings new problems. Although the patient does not pay directly for medical care at the time he consumes it, nurses, doctors, dentists and other health workers still have to receive an income in return for the services they provide. These incomes are no longer derived from the people as patients paying fees or voluntary insurance premiums—they come from the people as tax-payers.

The problem of paying directly for medical care as a patient is merely shifted to the problem of paying taxes—and taxes are no more popular than direct payments for medical care.

Ever since the state service started, successive governments have thus been faced with a dilemma. On the one hand the governments have attempted to provide medical care of the quality and quantity acceptable to the electorate, on the other hand they have tried to

limit expenditure of tax funds as much as possible. Although the two objectives tend to be mutually exclusive, the issues are not of minor importance to the government. The whole nation is intensely interested in the level of taxation, and in the effectiveness of its state operated health service, the only channel through which it now obtains medical care—money and life interest us all a great deal.

How has cost been kept down over the last ten years or so? By efficiency in the use of material and human resources? Economy with efficiency has been the aims of the state authorities for ten years and in principle they are highly desirable objectives. However, economy in practice often means cheapness. This carried too far tends to impair efficiency.

The easiest way to economize, the way used by a business as it goes bankrupt, is to cut capital expenditure. Capital expenditure was the first casualty in the economy campaign in the hospitals. The proportion of the total capital investment of the nation devoted to hospitals, already so low in 1949, has fallen substantially since then. Forty-five per cent of the 4,000 British hospitals are already over 70 years old and 21 per cent over 100 years old.

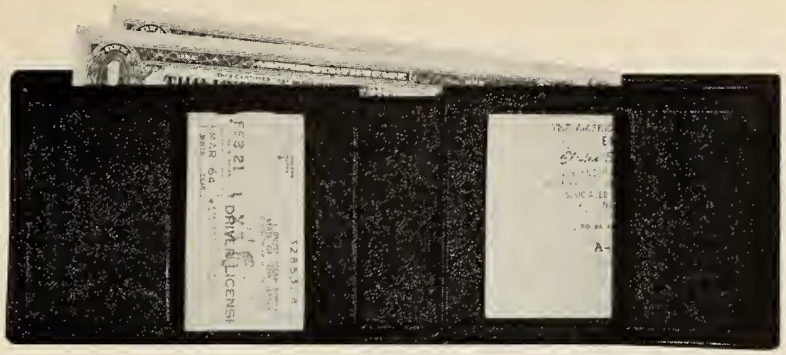
Because most of the capital which has been spent has gone toward patching and mending old buildings only one new hospital has been completed since the end of the war, although another 20 or so are under construction. Much of the energies of doctors and nurses has, as a result, been wasted as they work in inefficient surroundings which have been perpetuated by an excessively narrow pursuit of economy.

Is the 14-year policy of economy in doctors' earnings having any effect on the quality of medical care available in the nationalized hospitals? Many young doctors are showing themselves unwilling to accept the cut prices offered for their services by the State. Medicine may be a vocation but a vocation alone is inadequate to feed, clothe and house one's children.

With the State virtually a monopoly employer of doctors they must either accept the terms offered by the State, or leave the country, or leave their profession. Large numbers have left the country. In the ten years of the 1930's that is before nationalization, an annual average of 27 doctors with British degrees registered for practice in Australia. In the last five years the annual rate has been 225. In the last ten years the number of British doctors going to Australia and North America has been well over five times the rate prevailing in the 1930's and the total of 600 a year is equivalent to a third of the annual output of the British medical schools. The reasons for their de-

(Continued on Page 1140)





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British Doctor Describes Weaknesses In State-Financed Medical Programs

(Continued from Page 1138)

parture is that in the countries of the New World the professional freedom of doctors is greater, the opportunity to practice medicine well is enhanced, and the financial rewards are more appropriate to the years of study, the long hours of work, and the heavy responsibility which doctors carry.

To aggravate the shortage of doctors in Britain due to high emigration and low recruitment, the rate of retirement of elderly doctors is now rising steeply.

To cope with the failure in supply of doctors with British degrees the State hospitals are increasingly relying on doctors from overseas to take temporary posts. By 1960, 41 per cent of all junior hospitals posts in England were filled by doctors trained outside the British Isles (nearly 4,000 doctors from overseas), and the proportion is rising rapidly.

Difficulties in language is one of the major problems because of the short time many remain in Britain. It is not unusual to find a doctor at a mental hospital who, being barely able to speak English, not only cannot communicate with his patients, but has great difficulty in talking to other doctors.

It has been an error to assume that the major problem in medical care is cost. If the burden of payment is removed from the patient then all will be well was the oversimplified approach of the 1940's. This is just not true. Of greater importance is quality of medical care available. This is a complex concept, and somewhat intangible, just as the concepts of freedom and patriotism are, but their complexity and their intangibility makes them no less important.

If you think that the British will never change their nationalized health service because they like the state to provide free medical care, and that if medicine is in trouble we shall not remedy it, then I suggest that you think again. When my fellow-countrymen come to realize from the course of events that change is needed changes will be made, and if we are in real trouble then we will get out of it. After all—we have done so before.

Examination Scheduled

The American Board of Obstetrics and Gynecology announces that the next scheduled Part I (written) Examination of this Board will be held in various examining centers of the United States, Canada, and military bases outside of the continental United States on Friday, December 14, 1962, at 2:00 p.m. Information may be obtained by writing to—Robert J. Faulkner, M.D., Executive Secretary and Treasurer, American Board of Obstetrics and Gynecology, 2100 Adelbert Road, Cleveland 6, Ohio.

Doctor Nelson, in Moscow Speech, Urges World Fight Cancer

Speaking before the VIII International Cancer Congress in Moscow, Harry M. Nelson, M.D., Detroit, Chairman of the Committee to Advance the Worldwide Fight Against Cancer, suggested international efforts must be made if cancer is to be defeated.

"Cancer is not American, or British, or Russian, or African," Doctor Nelson said. "It is international, worldwide, lawless, fenceless. Fighting it must be the common concern of all mankind."

Doctor Nelson, former president of the American Cancer Society, continued: "What could be more absurd than to be limited by state or national boundaries in fighting this disease?"

"The search for this answer can bring us more freedom from a disease.

"The common understandings taught in the language of the healing art can be models for achieving lives of fruitfulness and peace in all human endeavors."

Attending the Moscow meeting from Michigan besides Doctor Nelson were Doctors John Birch, Grosse Pointe; Michael J. Brennan, Grosse Pointe; Laurence S. Fallis, Detroit; Harry C. Saltzstein, Detroit; and Helene Siegel, Detroit.

U-M Alumni Event Set for November 1-3

The program for the Eighth Triennial Alumni Conference at the University of Michigan, November 1-3, will accent the latest advances in medicine through lectures, seminars and demonstrations.

Some of the highlights are a welcome by President Harlan Hatcher, "The Future of Blue Cross," and presentations of current research. The Scientific sessions will cover steroids, trauma, adolescence, congenital defects, thyroid and vascular surgery.

The Conference also will highlight a banquet at the Michigan Union followed by dancing and refreshments at the Washtenaw Country Club, picnics, luncheons and seats for the Michigan-Wisconsin game. Several class reunions are being planned. The ladies also are invited to enjoy specially planned campus tours and to attend an illustrated lecture on the Michigan Band's recent trip to Russia and the Near East by William D. Revelli, Director of University Bands.

Joins MHS Staff

D. Eugene Sibery is the new director of the Hospital Affairs Division of Michigan Hospital Service (Blue Cross) to succeed Bennett J. McCarthy, now the assistant general manager.

Mr. Sibery had been administrator of Crittenton General Hospital in Detroit since October 1, 1956. A graduate of the University of Michigan, he served as administrative assistant to the Administrator of University Hospital from 1946 to 1956.



Editorial Comment

Pro - The Relative Value Study - Pro

Detroit Medical News, July 30, 1962

A physician should not and cannot be expected to place one single fee on one single service. However, the importance and skill required to perform one procedure as compared to another should bear a constant relationship no matter what the fee level may be. This then is a Relative Value Scale. In Michigan a considerable sum of money has been spent to develop our own scale to reflect the practice of medicine in Michigan. The following points should be considered:

1. We are using a relative value scale now. Since 1958 the California RVS has been used by Michigan Medical Service until Michigan could develop its own scale.

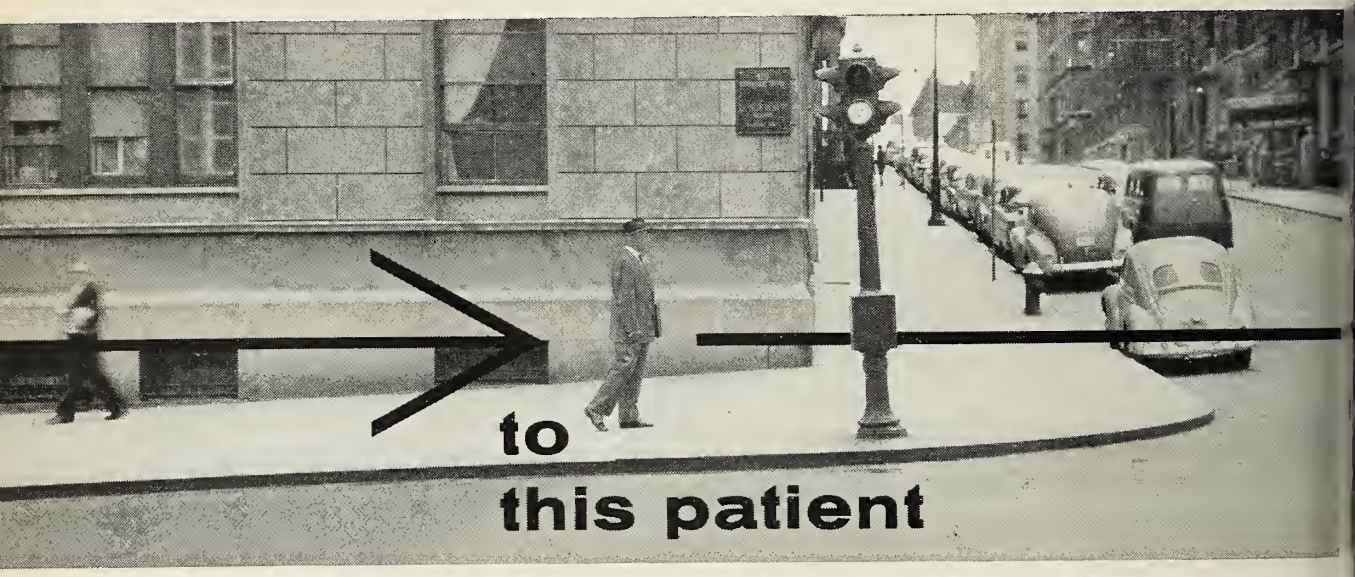
2. The Michigan RVS *is not* a fee schedule. It *could* be used to develop twenty different fee schedules by varying the price of the unit. A low-priced unit would perhaps set up an indemnity type of insurance schedule. A higher priced unit would perhaps set up a service type insurance schedule. All that a relative value schedule does is maintain the proportionate value of one procedure against another or against many other procedures. Thus in *any* fee schedules made from this RVS, procedure "A" would always be greater than procedure "B" by the *same* proportion.

3. Relative value therefore is simply the *equitable* division of the medical dollar. It insures that any one practitioner receives his fair share of that dollar no matter which price schedule is being used. Whether one million or ten million dollars of insurance benefits are being divided, the division is equitable when the relative value scale has been used.

4. The relative value scale is *not* price-fixing in any sense. As stated above, it establishes value for a procedure which is a definite part or valuation of the whole. *Only* when a dollars and cents price is placed on the unit is there a fee schedule or price list. Obviously the Michigan State Medical Society should never place a price on the unit.

5. The Michigan RVS has made significant changes in two areas which differ considerably from the presently used California scale:

(a) The Michigan Study has attempted to place relative values for *medical procedures* just as for surgical procedures. This has long been neglected and represents a big step forward in which Michigan has



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the blocks seem much shorter... he can walk many more of them in comfort

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taken the lead in this approach to medical listings. Experience in this area should allow further development as time goes by.

(b) The Michigan study offers a means of continuing relativity not only within one field, but also between the four main fields, medicine, surgery, roentgenology and pathology, to insure the equitable distribution of insurance monies among *all* doctors.

6. No principles of medical practice have been disturbed by the development of the RVS. In fact, care has been taken to reflect normal practice.

7. Physicians must assume responsibility for setting up value scales such as this one. It will be done by lay persons, either by insurance companies or by government without our assistance, if we fail. There is now published a "Medical Fee Guide" compiling existing fees listed by insurance companies, Blue Shield, Workmen's Compensation, private categories, etc., for every state in the union. Fees are a secret to no one.

8. The McNerney Report noted the Michigan RVS and recommended its adoption. This has been noted by the "Governor's Commission on Prepaid Hospital and Medical Care Plans." Acceptance would indicate the physician's sense of public responsibility.

If the RVS report is adopted by the Michigan State Medical Society, a continuing committee would be necessary to evaluate new procedures and to make changes in the listed relative values as required by changing methods of treatment and improved techniques and to correct any errors in the present schedule. Also, further actuarial studies would have to be made before any insurance company could put these changes into practice.

Finally, it must be remembered that this Relative Value Study was made by doctors, to benefit Michigan doctors, by laying down rules for the development of fee schedules. This is a progressive, responsible and positive demonstration by organized medicine that it can solve its own problems.

Summary

A relative Value Scale is not a fee schedule. It provides equitable distribution of insurance money.

We have had an RVS (California's) since 1958.

The new Michigan RVS is better because: it gives relative values to medical problems; it inter-relates the four main areas of practice, for equitable distribution.

The RVS scale is never final; it is subject to constant change and review.



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MICHIGAN DEPARTMENT OF HEALTH
ALBERT E. HEUSTIS M.D., State Health Commissioner

Health Appraisal of School Age Children

The responsibility for the health supervision of the school-age child belongs primarily to his parents. Health supervision begins before birth and continues throughout life under the guidance of the private physician and dentist and with the assistance of teachers, local health department personnel, and other community health resources. Health supervision, which is basic to physical fitness consists of appraisal, prevention and treatment.

The child's progress in school is dependent largely on his physical and emotional health and sense of well-being. The teacher needs to be fully aware of a child's physical condition and developmental status in order to help him to realize his full potential for growth as a person and to achieve at an optimum level.

Components of Health Appraisal

1. A careful and complete health history furnished by the parent and periodically brought up to date. It should include information regarding past experiences which may influence the child's school adjustment and information about illnesses and handicaps, especially those which may limit the child's participation in school activities or may cause classroom emergencies.
2. A complete immunization record from the physician or local health department (or a statement from the parents to the effect that the child has not been immunized because of religious or other convictions) as required by Act 12 of the P.A. of 1960.
3. Medical and dental examinations at intervals appropriate to the age and needs of the child. The minimum schedule of physical examinations includes a complete examination of the child immediately prior to his entrance into school and at the beginning of adolescence, usually at entry into junior high school. Additional examinations are recommended at about the third grade level and prior to high school graduation.
4. Special examinations done when a health problem arises or when the child may be participating in strenuous physical activity.
5. Observations of the child by classroom teachers, public health or school nurses, principals, physical education teachers, guidance personnel. A complete objective, and pertinent statement of the observations should be entered in the child's health record. Any problems should be discussed with the parents and also communicated to the family physician, giving more assurance that the problem will be evaluated and corrected.
6. Screening tests for hearing and vision, height and weight measurements, dental inspections, and other special evaluations. The results of these procedures should be carefully evaluated and followed up by the public health or school nurse. Height and weight measurements should be interpreted in terms of individual needs and variations.

Records

The school should adopt a suitable health record, such as The Michigan School Health Record, form Ca-60C, which allows continuity of records throughout the child's school career. Such a record, when properly completed and kept up to date, will provide a good guide for the teacher in her understanding of the child and evaluation of his potential. A standard form for physicians to use in reporting to the schools, prepared as a companion form to the school health record, will facilitate communication between the physician and school regarding conditions which should be taken into consideration in planning the child's education program.

Health Education and Health Appraisal

The close correlation of health education with the various aspects of health appraisal will give the child and his parents an appreciation of the value of health supervision and will help to lay a lasting foundation for a long, healthy life.

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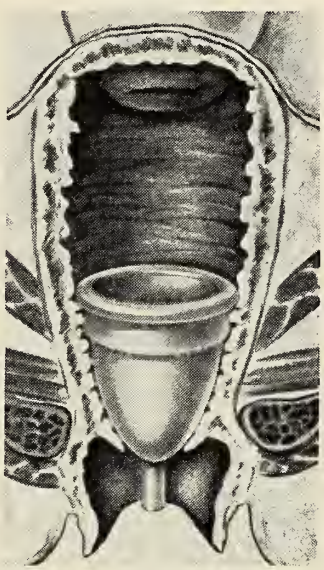
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Ref: Pena, E.F., Obst. & Gynec., *19*:794, 1962. Karnaky, K.J., Obst. & Gynec., *19*:688, 1962. Pena, E.F., Obst. & Gynec., *19*:684, 1962. Karnaky, K.J., Tri-State M.J. Sept., 1961. Burrus, S. Jr., Am. J. Obst. & Gynec. *80*:390, 1960. Karnaky, K.J., Tri-State M.J. Aug. 1960. Karnaky, K.J., Tri-State M.J., June, 1960. Liswood, R., Cur. Med. Dig., *26*:92, 1959. Schaefer, G., Clin. Obst. & Gynec., *2*:535, 1959. Liswood, R., Obst. & Gynec., *13*:539, 1959. Dickinson, R.L., JAMA, *128*:490 (June 16) 1945. Biskind, Mod. Med., *22*:128 (June 15) 1954.

IN MEMORIAM

CHARLES M. BURGESS, M.D., 55, Detroit physician, died June 30, 1962.

Doctor Burgess was a past president of the Northern Tri-State Medical Association, and an active member of MSMS and the Oakland County Medical Society.

ALEXANDER M. MARTIN, M.D., 76, Grand Rapids physician since 1915, died July 8, 1962.

A 1915 graduate of Wayne State University College of Medicine, Doctor Martin served as a Captain in the Army Medical Corps during World War I. He took his residency at Chicago's Lying-In Hospital, prior to coming to Grand Rapids to practice.

He was on the staffs of Butterworth and Blodgett Hospitals, and was a former staff member of St. Mary's Hospital, heading its department of obstetrics and gynecology.

He was a life member of the Michigan State Medical Society.

EDGAR T. MORRIS, M.D., 86, Nashville physician for 60 years until his retirement two years ago, died Jun 27, 1962.

A graduate of Loyola University School of Medicine, Chi cago, Doctor Morris was a past president of the Barry County Medical Society and a life member of the Michigan Stat Medical Society. He was on the staff of Pennock Hospital Hastings.

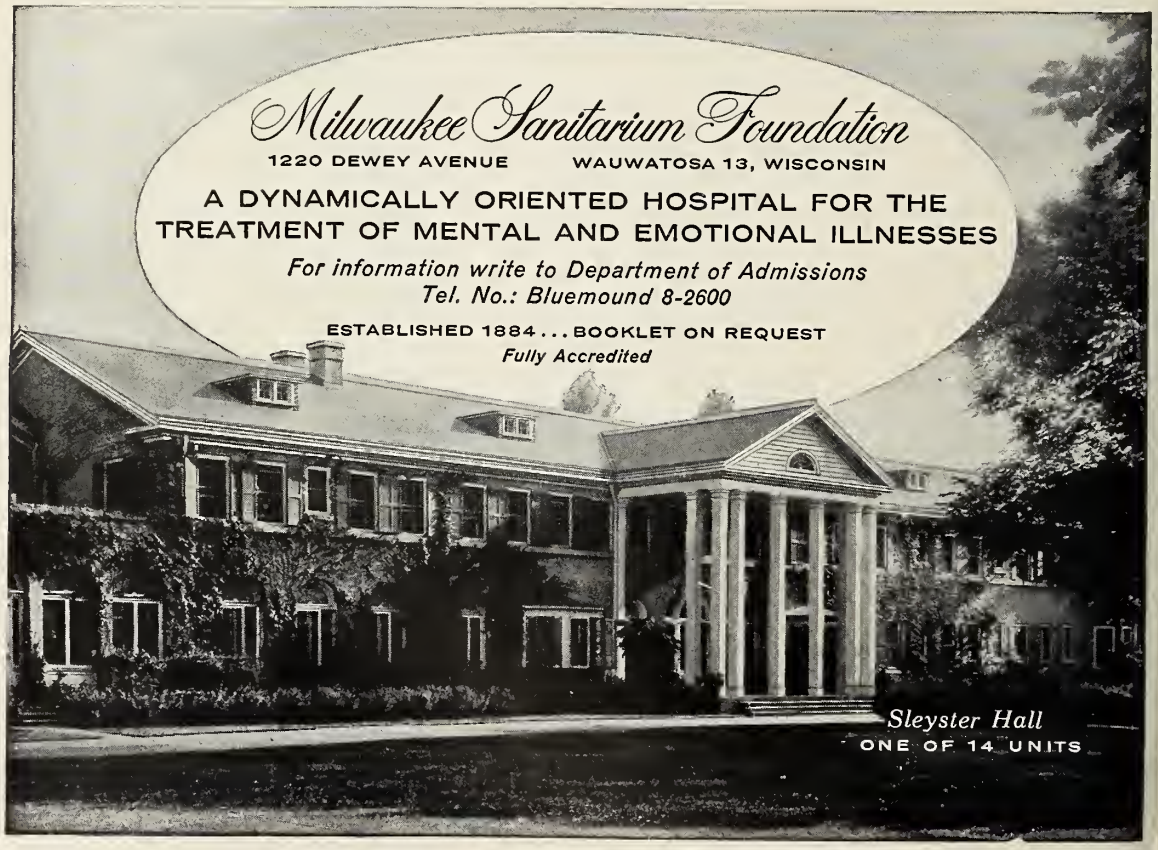
THEODORE I. ROTH, M.D., 63, retired traumatic surgeon, formerly with the Detroit Industrial Clinic, died July 11, 1962.

A former chief of staff and chief of surgery at Detroit Memorial Hospital, he was a fellow of the International College of Surgeons. He was a 1922 graduate of the Jefferson Medical School, Philadelphia.

THOMAS P. TREYNOR, M.D., 66, Big Rapids physician since 1926, died June 28, 1962.

A graduate of University of Iowa School of Medicine, he attended the U. S. Army Medical School in Washington, D. C.

Doctor Treynor was a former member of the resident staff of Harper Hospital, Detroit, and an A-A surgeon of the U. S. Public Health Service. He had held the positions of professor of biology and pathology at the University of Iowa and was a former officer in the Medical Regiment of the Michigan National Guard.



Honors Accorded Doctors

LONGTIME SERVANT—Patients and friends honored M. E. Bovee, M.D., at a Port Huron community event recently for his 50 years in Medicine. Dr. Bovee was graduated from the Detroit College of Medicine and practiced in Maple Ridge seven years, before moving to Port Huron in 1919. Dr. and Mrs. Bovee make their home in Lexington.

* * *

CITED FOR SERVICE—George Aitken, M.D., Grand Rapids, recently received the Distinguished Service Award from the Mary Free Bed Guild Childrens Hospital and Orthopedic Center. He has served as chief of staff and chief of the department of orthopedic surgery.

* * *

APPRECIATION VOICED—Alfred Golden, M.D., Detroit, has been given a gold lifetime membership card in the Cass Technical High School Association for his work on behalf of Cass Tech.

* * *

THANKED BY TOWN—L. W. Howe, M.D., Marquette, team physician many years for both Northern Michigan College and Graveraft High School, was honored this summer at a community athletic event.

* * *

JOINT RECOGNITION—D. B. Ruskin, M.D., Saginaw, recently was cited for service to psychiatric medicine in alliance with general medical practice. The joint citation was from the Michigan Society of Medicine, Michigan Academy of General Practice, and the Michigan Society of Neurology and Psychiatry.

* * *

MEDICAL WRITERS—"The Information Explosion—Its Challenge and Problems" will be the theme of the 19th annual meeting of the American Medical Writers Association at the Sheraton Park Hotel in Washington, D. C., October 12-13. The first day will be devoted to what medical journal editors, authors, educators, pharmaceutical companies, and medical writers can do to meet the challenge of the flood of new medical information. On the second day, the meeting will consider the promise of recent advances in information storage and retrieval, in utilization of the "newer" communication media (films, radio, television, recordings, and programmed instruction), and in professionalism among medical communication personnel. For details and registration forms contact John Sargeant, Chairman of the Local Arrangements Committee, Medical and Chirurgical Faculty of Maryland, 1211 Cathedral Street, Baltimore 1.



CONDUCT CANCER RESEARCH—The Michigan Cancer Foundation recently announced the allocation of grants to two MSMS members toward the continuing fight against cancer. Included among the individual grant recipients are J. Walden Retan, M.D., Detroit, $14,848 for "An investigation of the mechanism of the anti-immune activity of certain antineoplastic drugs"; and John Reid Brown, M.D., Detroit, $15,000 for study of "The problems of therapy, diagnosis and perhaps prophylaxis of cancer."

* * *

TO STUDY HEALTH FACILITY NEEDS—The University of Michigan has received a grant of $54,396 from the National Institutes of Health of the U. S. Public Health Services for a two-year study of community needs for hospitals and other health care facilities. The project "will attempt to find the underlying relationships which determine a community's need for health care facilities rather than the rules of thumb which are currently employed in hospital planning."

* * *

MARYLAND REMODELS STATE HEADQUARTERS—"Our primary purpose was to have a building for usefulness and for comfort" was the theme stressed at the dedication of the remodeled headquarters building for the Medical and Chirurgical Faculty of the State of Maryland. The basement was improved to provide a meeting room for The Council and the first floor now features a larger meeting room and offices. On the second floor is the new library and the fourth floor is for the Board of Medical Examiners. The Baltimore City Medical Society also is located in the refurbished building.

The total cost was $475,000.

* * *

INTERPROFESSIONAL CONFERENCE — The Midwest Interprofessional Conference will be held at Iowa State University, Ames, Iowa, September 17-18. This conference was formed several years ago to aid members of the various professions keep abreast of research on diseases common to animals and man. Papers will be presented in the areas of the leukemia complex, toxoplasmosis, salmonellosis, trichinosis, and aging and vascular change.

* * *

HONORED BY MSPA—Hugh W. Brenneman, public relations counsel for the Michigan State Medical Society was acclaimed as "Pharmacy's Choice for Citizen of the Year" at the 79th meeting of the Michigan State Pharmaceutical association meeting.

* * *

NEW POSITION—Donald L. Schaefer, M.D., is the new psychiatrist and director of the mental hygiene department of the Health Service at the University of Michigan. Associate psychiatrist in the mental hygiene department since July 1961, Dr. Schaefer succeeds Theophile Raphael, M.D., who retired after 30 years with the University.

* * *

NAMED DENTAL DEAN — William R. Mann, D.D.S., is the new dean of The University of Michigan School of Dentistry. He succeeds Paul J. Jeserich, D.D.S.,

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who retired. Dr. Jeserich had been dean since 1950 and has been on the School of Dentistry faculty since 1924.

U-M Executive Vice-President Marvin L. Niehuss, explains that Dr. Mann's leadership has been demonstrated by his "national and international reputation in the field of dental education" where he has served as consultant to the W. K. Kellogg Foundation, the World Health Organization and numerous dental colleges in the U. S. and Canada. He is a past chairman of the MAP Committee on Education.

* * *

CYSTIC FIBROSIS STUDIES—The Cystic Fibrosis Clinical Studies Center of The University of Michigan Medical Center has received a $11,191 grant from the National Cystic Fibrosis Research Foundation. William F. Howatt, M.D., director of the project, seeks to "further develop a comprehensive care program for children with cystic fibrosis and enable us to conduct relevant research into the problems presented by this disease."

* * *

NATIONAL OFFICER—William H. Beierwaltes, M.D., Ann Arbor, is the new treasurer of the National Society of Nuclear Medicine, elected at the recent annual meeting of the Society held in Dallas. More than 750 scientists (including 300 doctors of medicine) participated in the meeting.

* * *

HOPES TO GARDEN—H. E. Cope, M.D., chief of the clinical pathology section of the Michigan State Health Department for 23 years, retired this summer to devote, as he stated, most of his time to his flower gardens. A graduate of the Rush Medical College, he was associate director of the Owen Clinical Laboratory in Detroit 15 years before joining the state department.

* * *

HALF CENTURY AGO—R. G. Tenerowicz, M.D., Hamtramck, was honored recently by 41 fellow medical practitioners recalling when Doctor Tenerowicz had served as Hamtramck Mayor 50 years ago.

MEETINGS U.S.A.

October

American Academy of Pediatrics, Palmer House, Chicago, Oct. 27-Nov. 1. E. H. Christopherson, M.D., 1801 Hinman Ave., Evanston, Ill., Executive Director.

American Cancer Society, Biltmore, New York City, Oct. 22-23. Ronald N. Grant M.D,., 521 W. 57th St., New York 19, Director of Professional Education.

American College of Gastroenterology, The Morrison, Chicago, Oct. 28-31. Mr. Daniel Weiss, 33 West 60th St., New York 23, Executive Director.

American College of Surgeons, Clinical Congress, Atlantic City, Oct. 15-19. William E. Adams, M.D., 40 E. Erie St., Chicago 11, Secretary.

American Heart Association, Inc., Sheraton-Cleveland Hotel, Cleveland, Oct. 26-30. Mr. Rome A. Betts, 44 East 23rd St., New York 10, Executive Director.

American Medical Association First National Congress on Mental Illness and Health, American Medical Association, 535 N. Dearborn St., Chicago 10. Oct. 4, 5, 6.

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American Medical Writers' Association, Sheraton Park Hotel, Washington, D. C., Oct. 12-13. Mr. John Sargeant, 1211 Cathedral St., Baltimore 1, Local Chairman.

American Roentgen Ray Society, Shoreham Hotel, Washington, D. C., Oct. 2-5. C. Allen Good, M.D., Mayo Clinic, Rochester, Secretary.

American Society of Anesthesiologists, Inc., Statler Hilton Hotel, New York City, Oct. 21-26. Mr. John W. Andes, 515 Busse Highway, Park Ridge, Ill., Executive Secretary.

Annual Seminar in Obstetrics and Gynecology, Oct. 22-25, U. S. Naval Hospital, Great Lakes, Ill.

International College of Surgeons, Mid-West Regional, Hotel Savery, Des Moines, Iowa. Oct. 31-Nov. 1. Write Bernard Barnes, M.D., 803 Equitable Bldg., Des Moines.

November

American Academy of Ophthalmology and Otolaryngology, Las Vegas, Convention Center, Nov. 4-9. W. L. Benedict, M.D., 15 Second St. S.W., Rochester, Minn., Executive Secretary.

American College of Chest Physicians (Interim Session) Ambassador Hotel, Los Angeles, Nov. 24-25. Mr. Murray Kornfield, 112 E. Chestnut St., Chicago 11, Executive Director.

American College of Gastroenterology, Annual Course in Postgraduate Gastroenterology, Chicago, Nov. 1-2.

American College of Obstetricians and Gynecologists, District V, Sheraton Hotel, Indianapolis, Nov. 8-10. John D. Gordinier, M.D., Owens Medical Center, Suite F, 4122 Shelbyville, Louisville 7, Ky., Secretary.

American Medical Association, Clinical Meeting, Los Angeles, Nov. 25-28. F. J. L. Blasingame, M.D., 535 N. Dearborn, Chicago 10, Executive Vice-President.

American Medical Women's Association, Ambassador Hotel, Los Angeles, Nov. 29-Dec. 2. Jessie Laird Brodie, M.D., 1790 Broadway, New York 19, Executive Director.

December

American Academy of Dermatology, Palmer House, Chicago, Dec. 1-6. Robert R. Kierland, M.D., First National Bank Bldg., Rochester, Minn., Secretary.

MICHIGAN MEDICAL MEETINGS

Michigan State Medical Society House of Delegates, Sheraton-Cadillac Hotel, Detroit, September 23-24-25; Scientific Sessions, September 26-27-28.

Women's Auxiliary to Michigan State Medical Society, Pick-Fort Shelby Hotel, Detroit, September 25-26-27.

Michigan State Medical Assistants Society, Statler Hilton Hotel, Detroit, September 27.

Medical Center Alumni Conference, Michigan Union, November 1-3.

Genesee County Medical Society, Diabetes Day Program, Flint, Children's Health Center, Mott Foundation, November 7.

Michigan State Medical Assistants Society, President's Conference, Grand Haven, Schuler's Restaurant, November 10-11.

Michigan Health Council State Conference, Michigan Union, Ann Arbor, Nov. 28-29.

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Letters to the Editor

Dear Doctor Haughey:

Rather than the medical profession's responsibility to provide more doctors, it is the community's responsibility to attract superior students into medicine by offering greater incentives.

If anyone thinks that the doctors "have it so good," let him quit what he is doing and take at least 13 years of schooling after high school.

Why should one expend 15 years of effort (including compulsory military service) before practice in order to work under a politician?

Following is another article in which you may be interested.

"Our government was created by superior and intelligent citizens who were very familiar with the philosophy, history and economics of past governments. Since then, the average quality of statesman has deteriorated because the average voter is inadequately educated and informed to select a better man.

"A vote-getter is often not qualified to manage government. His appeal to the average voter may be that he is no different than they are, he can play a banjo, he can make wise-cracks, and he has a wife and four children.

"Superior citizens often refuse to run for office against a demagogue, as the judgment is not being made by peers.

"Since doctors, lawyers, clergy and public accountants, beauticians and barbers must get accreditation to work, why is there no Board of Politicians to accredit a candidate in regard to philosophy, history and economics of governments?

"Psychoanalysis as a pre-requisite may be useful.

"No Hitler is wanted."

Cordially,
STEPHEN MALINA, M.D.

Bloomfield Hills, Michigan
July 13, 1962

●

C. Allen Payne, M.D.
Ada, Michigan

Dear Doctor Payne:

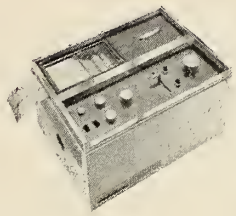
I have just been reviewing the April issue of The Journal of the State Medical Society and am writing to say that your editorial on "Cancer Control—What Can Be Done Today" is very well done, indeed, and very timely, too.

Knowing me and the department's interest in cancer and the things which we have done to help the public and the physician in the past, I am sure that you will enjoy my relating that I went through the article very expectantly and there, two sentences from the end, found the words I was looking for—"public health." Congratulations!

Sincerely,
ALBERT E. HEUSTIS, M.D.
Commissioner,
State Department of Health

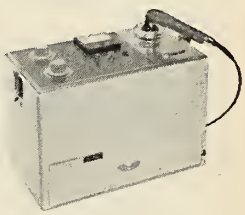
Lansing, Michigan
May 7, 1962

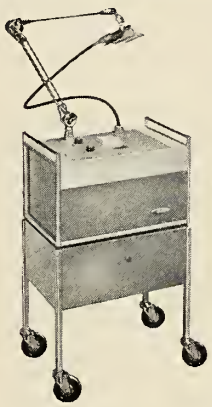
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MW-200 Microwave Diathermy produces temperature increases in muscle tissue up to 7.81° at a depth of 5 cms. (2"). Floating arm permits fast, easy positioning of treatment directors. Compact, mobile design.

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Michigan Authors

Charles E. Black, M.D., Lansing, "Automobile Accidents and autopsy Protocol: Some Reflections of a Forsenic Pathologist," *Notre Dame Lawyer*, December, 1960.

Vernon C. Abbott, M.D., Pontiac, "How To Staff a Hospital Emergency Department," *Bulletin, American College of Surgeons*, August, 1962.

James B. Blodgett, M.D., Detroit, "The Surgeon's Responsibility for the Quality of Surgery," *Bulletin, American College of Surgeons*, August, 1962.

James Kawchak, M.D., Dearborn, "Side Effects With Short Term Phenylbutazone Therapy," *Industrial Medicine and Surgery*, June, 1962.

M. H. Seevers, Ph.D., M.D., Ann Arbor, "Medical Perspectives on Habituation and Addiction," *Journal of the American Medical Association*, July 14, 1962.

Max Lichter, M.D., Melvindale, "A Role for the Physician in Civil Defense," *California Medicine*, July, 1962.

S. W. Hoobler, M.D. and **L. Ruiz, M.D.,** Ann Arbor, "Essential Hypertension," *American Practitioner*, June, 1962.

Irwin J. Schatz, M.D. and **Gerald Fine, M.D.,** Detroit, "Venous Aneurysms," *New England Journal of Medicine*, June 21, 1962.

Myron E. Wegman, M.D., Ann Arbor, "Pediatrics in Public Health," *The New Physician*, July, 1962.

Wayne W. Glas, M.D. and **E. H. Lansing, M.D.,** Eloise, "Oxymetholone as an Anabolic Agent in Geriatric Patients," *Journal of the American Geriatrics Society*, June, 1962.

Leo S. Figiel, M.D. and **Steven J. Figiel, M.D.,** Detroit, "Coiling of the Long Tube in the Small Intestine: A Sign of Intestinal Obstruction," *American Journal of Roentgenology, Radium Therapy and Nuclear Medicine*, April, 1962.

Steven J. Figiel, M.D., Leo S. Figiel, M.D., Fred K. Wietersen, M.D. and **E. Lievois, M.D.,** Detroit, "The Detection of Upper Gastro-Intestinal Disease with High Kilovoltage Techniques," *Radiology*, July, 1962.

J. Reimer Wolter, M.D., Ann Arbor, "Endogenous Fungus Endophthalmitis," *Archives of Ophthalmology*, September, 1962.

Kenneth R. Magee, M.D., Ann Arbor, "The Muscular Dystrophies," *Clinical Medicine*, September, 1962.

Herbert J. Robb, M.D., Detroit, "Vasodynamic Relations in Shock," *Clinical Medicine*, September, 1962.

The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

FINANCING MEDICAL CARE: AN APPRAISAL OF FOREIGN PROGRAMS, Edited by Helmut Schoeck. Current commentaries on medical care systems in seven foreign countries written by economists, actuaries, political analysts, physicians, professors of medicine, and statesmen. By Colm Brogan, London; Jean-Robert Debray, Paris; Fritz Diwok, Vienna; Marcel Grossman, Zurich; Carl Korth, Erlangen; Joachim Kühn, Münster; D. S. Lees, North Staffordshire; Reginald S. Murley, London; Sir Earle Page, Sydney; Paul Robillard, Paris; Werner Schöllgen, Bonn; Hans Schulten, Cologne; Wilhelm Theopold, Frankfurt; Ronald R. Winton, Sydney; Alfred Zänker, Stockholm. Caldwell, Idaho, The Caxton Printers Ltd., 1962. Price $5.50

This subject has been exhaustively studied by many men, by many commissions, and groups, and each one comes up with frustration. This book is quite fair in reporting various items and philosophies and theories and it quotes many authors in every part of the globe, portraying the troubles in the various areas indicated. The book is divided into five parts beginning with Britain's National Health Service, then France, Germany, Austria and Switzerland. Australia gets a very prominent closing section quoting the Rt. Hon. Sir Earle Page with many titles from Australia—whom we have met. The last part, about "Health As a Political Issue," brings us down to the present situation. The book is a storehouse of knowledge, plans and opinions.—W. H.

ATLAS OF CLINICAL ENDOCRINOLOGY. Including text of diagnosis and treatment. Second Edition with 165 plates, including 3 in color. H. Lisser, A.B., M.D., Clinical Professor Emeritus of Medicine and Endocrinology, University of California School of Medicine, San Francisco, California; former President, The Endocrine Society and Roberto F. Escamilla, A.B., M.D., Clinical Professor of Medicine, University of California School of Medicine, San Francisco, California; Civilian Consultant and Chief of Endocrine Clinic, Letterman Army Hospital, San Francisco, California. Saint Louis: The C. V. Mosby Company, 1962. Price, $23.00.

This Atlas of Clinical Endocrinology can lead one into most amazing and fantastic situations. All of the endocrine glands have very marked controls and affections, if not controlled. One's first thoughts are of the pituitary gland and its scope of functions, the thyroid gland and its multitude of conditions, the parathyroid and adrenal glands and their



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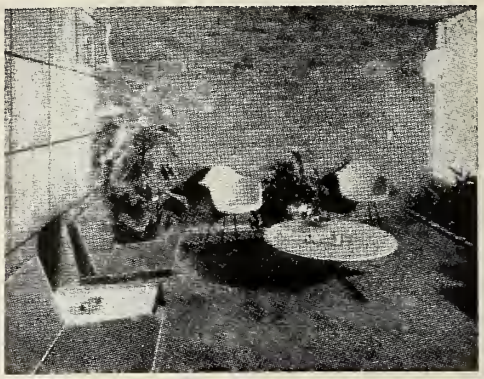
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many manifestations, the Islets of Langerhans in the pancreas, diabetes and other conditions, diabetes and metabolism and Dr. Conn's new disease, hyperaldosteronism. The first item in the book, Giantism, gives a list of names, locations and sizes of 30 famous giants. On page 27, the Tennessee Giant is listed as No. 18, and on page 29 there is a group of four pictures of him. We remember him, having seen him sitting by the side of the railroad (the L and M near Crossville, Tennessee) when spending a vacation in childhood in the Tennessee mountains. It is a most amazing book of 165 illustrations, short descriptions, outlines, comments and suggestions for treatment after one has made a diagnosis.

MEDICAL ABBREVIATIONS. A Cross Reference Dictionary. Compiled by the Special Studies Committee of the Michigan Occupational Therapy Association 1961. Copies may be secured by writing to: Occupational Therapy Department of Physical Medicine and Rehabilitation, University Hospital, Ann Arbor, Michigan. No price given.

This very handy little book has been prepared to aid all areas of the medical professions who utilize abbreviations in their records, clinical reports, et cetera.

BETWEEN US WOMEN. A Woman Doctor's Handbook on Pregnancy and Birth. By Dr. Laura E. Weber, M. D. Garden City, New York: Doubleday & Company, Inc. 1962. Price, $1.95.

This small, easily read book was prepared to dispel "fear of the unknown" and "misinformation," with the idea that a clear picture of what will happen to the mother will dispel a great amount of this unnecessary fear. Medical wording and dwelling on obstetrical catastrophies has been avoided. An attempt has been made to answer the questions girls must want answered, but are afraid to ask because "my doctor is so busy" or "might think it silly."

THE CIBA COLLECTION OF MEDICAL ILLUSTRATIONS, Volume 3. A Compilation of Paintings on the Normal and Pathologic Anatomy of the Digestive System, Part II, Lower Digestive Tract. Prepared by Frank H. Netter, M. D. Edited by Ernst Oppenheimer, M. D. Commissioned and published by CIBA. Sold at cost. $15.00.

The Ciba Foundation has completed another of their extremely well done series of paintings of anatomical and surgical projects. The volume III just issued is a collection of paintings of normal and pathological anatomy unsurpassed. The book will make a very ready and valuable reference source in diagnostic studies. It is not a text, it is a reference from the pictorial angle.

BOOKS RECEIVED

DIAGNOSIS AND THERAPY OF THE GLAUCOMAS. By Bernard Becker, M.D., Professor and Head of the Department of Ophthalmology, Washington University School of Medicine, St. Louis, Mo., and Robert N. Shaffer, M.D., F.A.C.S., Associate Professor of Ophthalmology, University of California School of Medicine, San Francisco, California. 230 illus; 5 plates in color. St. Louis: C. V. Mosby Company, 1961. Price, $18.00.

APPRAISAL OF CURRENT CONCEPTS IN ANESTHESIOLOGY. Edited and assembled by John Adriani, M.D., Professor of Surgery, Tulane University School of Medicine, New Orleans, La., Clinical Professor of Surgery and Pharmacology, Louisiana State University School of Medicine, New Orleans, La.; Director, Department of Anesthesiology, Charity Hospital of Louisiana, New Orleans, La. St. Louis: C. V. Mosby Company, 1961. Price, $7.75.

THE GOLDEN AGE COOKBOOK. By Phyllis MacDonald. Drawings by Margot Tomes. Garden City, New York: Doubleday & Company, Inc., 1961. Price, $2.95.

AERODYNAMIC CAPTURE OF PARTICLES. Proceedings of a Conference held at B.C.U.R.A. Leatherhead, Surry, 1960. Edited by E. G. Richardson, King's College, Newcastle-upon-Tyne, Symposium Publications Division. New York-Oxford-London-Paris: Permagon Press, 1961. Price, $8.00.

STRONG MEDICINE. By Blake F. Donaldson, M.D. Garden City, New York: Doubleday & Company, Inc., 1962. Price, $3.95.

EXECUTIVE'S HEALTH SECRETS. How to Lick Tensions and Pressures. By William P. Shepard, M.D., Former Medical Director of the Metropolitan Life Insurance Company. Indianapolis: The Bobbs-Merrill Company, Inc. (a subsidiary of Howard W. Sams & Co., Inc., Publishers, New York), 1961. Price, $4.95.

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SURGERY. A Concise Guide to Clinical Practice. Edited by George L. Nardi, M.D., Assistant Clinical Professor of Surgery, Harvard Medical School; Associate Visiting Surgeon, Massachusetts General Hospital, and George D. Zuidema, M.D., Assistant Professor of Surgery, University of Michigan Medical School Staff Surgeon, University of Michigan Hospital. By 23 authors. Foreword by Edward D. Churchill, M.D. Illustrations by Edith S. Tagrin. Boston: Little, Brown and Company, 1961. Price: Paperback, $8.50; Clothback, $12.00.

SLICE RECONSTRUCTIONS OF HUMAN CEREBRAL SECTIONS. By Wendell J. S. Krieg, Ph.D., Professor of Anatomy, Northwestern University Medical School. Evanston, Ill.: Brain Books, 1961. Price, $1.00.

RESEARCH WAYNE STATE UNIVERSITY. A report of programs, goals, work in progress. "Simply in terms of economic self-interest, our proper course is to increase our investment in science just as fast as we can, to a limit not yet in sight." By President's Science Advisory Committee, Wayne State University, Detroit, Michigan.

46 ANGRY MEN. The 46 civilian doctors of Elizabethville denounce UNO violations in Katanga of its own charter, the universal declaration of human rights, the Geneva conventions. Preface by Mr. Paul Struye, President of the Belgian Senate. Editor responsible: Dr. T. Vleurinck, 96, Avenue de Broqueville, Brussels 15, Belgium.

INDUSTRIAL MEDICAL DEPARTMENT, PLANNING, LAYOUT AND DESIGN. By William J. Fulton, M. D. Detroit: General Motors Corporation, 1962.

EYE SYMPTOMS IN BRAIN TUMORS. By Alfred Huber, M.D., Privat Dozent for Ophthamology at the University of Zurich, Zurich, Switzerland. With a foreword by Prof. H. Krayenbuhl, Director of the Neurosurgical Clinic, University of Zurich, Zurich, Switzerland. Translated by Stefan Van Wien, M.D., Associate, Department of Ophthalmology, Northwestern University Medical School, Chicago, Illinois. With a foreword to the English translation by Derrick Vail, B.A., M.D., D.Oph. (Oxon.), F.A.C.S., F.R.C.S. (Hon.), Professor and Director, Department of Ophthalmology, Northwestern University Medical School, Chicago, Illinois. Illus. St. Louis: C. V. Mosby Company, 1961. Price, $16.00.

GREAT MOMENTS IN MEDICINE. A Collection of the First Thirty Stories and Paintings in the Continuing Series. A History of Medicine in Pictures. By George A. Bender. Paintings by Robert A. Thom, Detroit: Parke-Davis. 1961. (No price given)

DIFFERENTIATION BETWEEN NORMAL AND ABNORMAL IN ELECTOCARDIOGRAPHY. By Ernst Simonson, M.D., Professor of Physiological Hygiene, University of Minnesota; Consultant in Electrocardiography at Mt. Sinai Hospital and Veterans Administration Hospital, Minneapolis, Minn. Illus. St. Louis: C. V. Mosby Company, 1961. Price, $13.00.

MEDICAL PHYSIOLOGY. Edited by Philip Bard, Professor of Physiology, The Johns Hopkins University. Eleventh edition. 508 illus; 4 in color. St. Louis: C. V. Mosby Company, 1961. Price, $16.50.

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FOR SALE—DETROIT—Active general practice, completely equipped office, 2-flat building and garage, office first floor, living quarters second floor, sold as unit only. Will introduce. Immediate possession, terms. Reply Box No. 26, 120 W. Saginaw Street, East Lansing, Michigan.

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GENERAL PRACTITIONER: Needed in area located in the Thumb of Michigan. Excellent hospital facilities with expansion anticipated in the near future. Preferably younger man who might be interested in either solo, associate, or partnership practice. Would have choice of several towns in which to establish, if desires solo practice. Financial aid available if necessary. Reply Box 20, 120 W. Saginaw Street, East Lansing, Michigan.

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PRACTICE FOR SALE—Northern Michigan General Practice. Four bedroom luxurious home and combination five room office. Unopposed practice. Approved hospital 12 miles on U.S. Highway. Gross over $40,000 last year. Low overhead. Office equipped with EKG, X-ray, etc. Price $32,000. Will accept low down payment and good terms. This price is actually cost of equipment and home. Reply Box 21, 120 W. Saginaw Street, East Lansing, Michigan.

TRAINEESHIPS AVAILABLE—Since the National Institute of Mental Health has increased the number of traineeships available to each psychiatric training center, we now have two positions available for qualified General Practitioners. Interested physicians should contact the Psychiatric Division, Wayne County General Hospital, Eloise, Michigan. Phone: CRestwood 4-3000.

MEDICAL DOCTOR WANTED—In Holly, Michigan. Now only two M.D.'s to serve community area of 10,000 population. Office space on ground floor (built for doctor now retired), excellent location, reasonable rent. Equipment available. For further information, write to Helen Shoppe, 111 S. Saginaw, Holly, or phone Mrs. Packer, MElrose 4-6841.

WANTED: General practitioner to join well-established group in community of 5,000 midway between Detroit and Lansing, Michigan. 88-bed hospital with 60-bed expansion program in progress. Located in community. Practice has full surgery privileges. Salary range $12,000 to $15,000 for first year, leading to partnership status. Write Box 28, 120 W. Saginaw Street, East Lansing, Michigan.

BALDWIN (Lake County)—General Practitioner needed. In county of 5,338 which more than doubles during resort period. Hospital located in Reed City—18 miles. Good schools, housing and roads. Year-around sports available. Large number of lakes and trout streams. Need confirmed by only full-time practicing medical doctor in county. Contact: Mary Trucks, Pharmacist, Baldwin, Michigan.

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WANTED: Another M.D. GENERAL PRACTITIONER in Hillsdale, Michigan. Will be heartily welcomed by doctors. Modern 60-bed hospital expanding to 100 beds. New industry coming. One doctor moving to larger quarters will leave rental space available soon. Contact: John Rasmussen, Administrator, Hillsdale Community Health Center, Hillsdale, Michigan.

PHYSICIAN V: Starting salary $12,236 annually with periodic increases to $14,470. To fill immediate vacancy at the Northern Michigan Tuberculosis Sanatorium at Gaylord, Michigan. All Michigan civil service benefits including an excellent state contributory insurance program. Must have one year of experience in the practice of medicine and surgery and possession of a license to practice medicine in Michigan. For additional information, contact Mr. R. J. Murray, Director of General Services, Michigan Department of Health, 3500 North Logan Street, Lansing 4, Michigan. Telephone: 373-1365. An equal opportunity employer.

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The diabetes cover design is easily recognized by every doctor as the familiar glucose-oxidase test paper for glycosuria.

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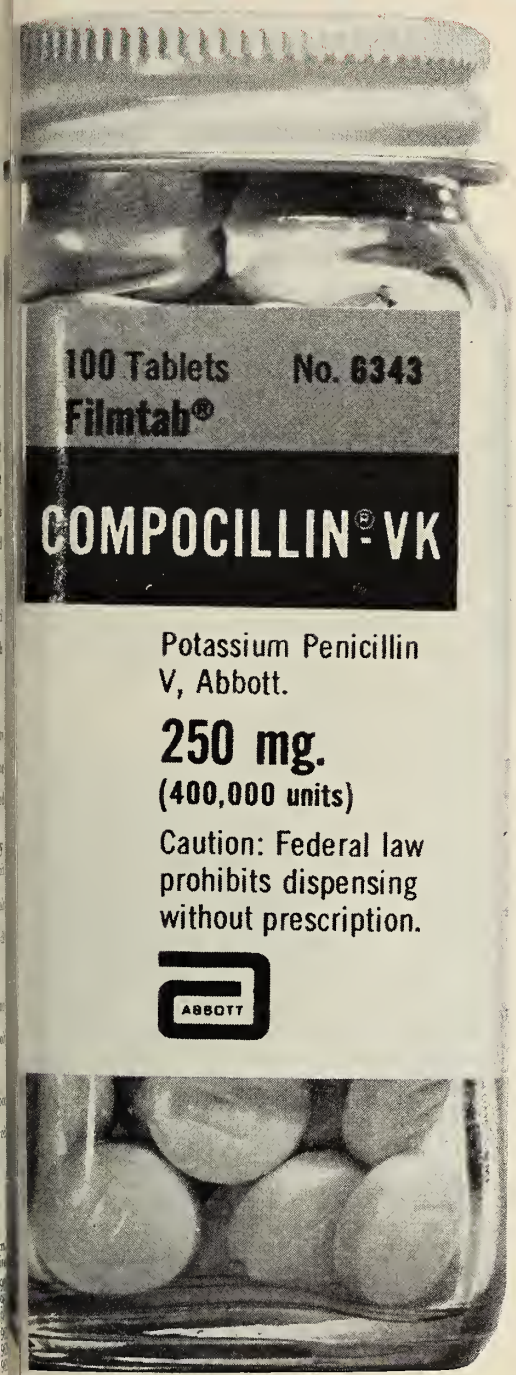
Delegates

	Term Expires
R. L. Novy, M.D., Detroit	1962
G. W. Slagle, M.D., Battle Creek	1962
J. R. Heidenreich, M.D., Daggett	1963
W. A. Hyland, M.D., *Chairman*, Grand Rapids	1963
O. J. Johnson, M.D., Bay City	1963
L. R. Leader, M.D., Detroit	1963

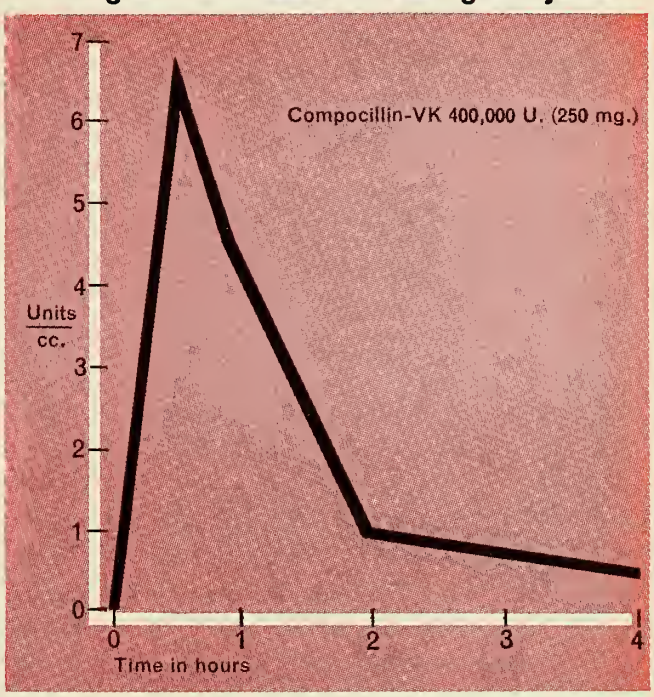
Alternates

	Term Expires
C. I. Owen, M.D., Detroit	1962
R. E. Rice, M.D., Greenville	1962
D. N. Sweeny, Jr., M.D., Detroit	1962
G. B. Saltonstall, M.D., Charlevoix	1963
J. M. Wellman, M.D., Lansing	1963
Sidney Adler, M.D., Detroit	1963
B. M. Harris, M.D., Ypsilanti	1963

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*Chart data from two separate studies completed by the Microbiologic and Medical Departments of Abbott Laboratories.

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210274

President's Page

MEDICINE: A PROFESSION OF DEDICATED SERVICE



C. I. Owen

Michigan State Medical Society
President

The medical profession of the United States and the State of Michigan has much of which to be proud.

The American system of medical practice has developed and is furnishing the finest medical care the world has ever seen. Our people are healthier and live much longer than they did a generation ago. Among the major reasons responsible for this change are the decrease in infant mortality, the sharp decrease of maternal mortality and the marked reduction and almost complete disappearance of many of the infectious and communicable diseases.

Many of our accomplishments have created new problems. For example, the decrease in maternal mortality and in infant mortality has encouraged and resulted in the production of larger families. The increased longevity in the population has resulted in more older people. Life expectancy now is over 70 years.

These changes, which have been produced by our good accomplishments and work, are responsible to a great extent for some of the political and social problems that are giving us so much concern.

From a social standpoint, the medical profession always has had a strong conscience. The amount of charity and semi-charity work done by doctors of medicine is tremendous. Actually the total is unknown. One never hears a physician boasting about the amount he has done.

In order to keep Medicine free and independent of government and state control, the profession has been obliged to be more active on the political scene and lately has been successful on a national as well as a state level. We, as a profession, must be and are constantly on the alert for scientific advancements that can be applied to the practice of medicine. We, likewise, must be alert to social and political situations that would influence the practice of medicine.

We must be fully aware of the large number of politicians and other so-called leaders in positions of trust who are more interested in power and spoils of office than in the furnishing of sound leadership.

We must remember always that our profession is a profession of service; service of ourselves, service of our knowledge and service of our professional ability.

We must do our work and perform our services with enthusiasm, from the depths of our heart and without personal fanfare.

We must also furnish strong and certain leadership—leadership that will take responsibility and give direction.

These and many other things we must do with sincerity and with purpose.

(Excerpts from Inaugural Address by Doctor Owen to 1962 House of Delegates in Detroit)

Doctor Owen Installed; Doctor Johnson Elected



Clarence I. Owen, M.D., Detroit, was installed at the 1962 Annual Session at Detroit as President of the Michigan State Medical Society for 1962-63. He was installed by Otto K. Engelke, M.D., Ann Arbor, in an impressive ceremony before the House of Delegates.

O. J. Johnson, M.D., Bay City, was the unanimous choice as President-Elect to direct the organization in 1963-64. Doctor Johnson, past president of the Bay-Arenac-Iosco County Medical Society, has been serving as Councilor from the 10th District and Vice-Chairman of The MSMS Council.

* * *

In the House of Delegates election, James J. Lightbody, M.D., Detroit, was selected to succeed himself for another year of service as Speaker. J. W. Rice, M.D., Jackson, was elected Vice Speaker to succeed retiring Harold F. Falls, M.D., Ann Arbor.

* * *

The House elected the following Councilors—1st District, Don W. McLean, M.D., Detroit; 7th District, John J. Coury, M.D., Port Huron, re-elected; 8th District, A. Carl Stander, M.D., Saginaw; 10th District, David A. Bowman, M.D., Bay City. Doctor McLean fills the vacancy created by the resignation of Wm. Bromme; Doctor Stander succeeds E. S. Oldham, M.D., Breckenridge; and Doctor Bowman fills the vacancy created when Doctor Johnson was selected as president-elect.

* * *

The following were elected as delegates from Michigan to the AMA—President Owen, D. N. Sweeny, Jr., M.D., Detroit, and G. W. Slagle, M.D., Battle Creek.

Chosen as alternate delegates to AMA were—Edgar E. Martmer, M.D., Detroit; R. E. Rice, M.D., Greenville, and A. Hazen Price, M.D., Detroit.

* * *

At the organizational meeting of The Council following the House of Delegates meeting, O. B. McGillicuddy, M.D., Lansing, was re-elected as Chairman. H. H. Hiscock, M.D., Flint, was named Vice-Chairman—the position formerly held by Doctor Johnson.

The three chairmen of the Council standing committees were re-elected: William A. Scott, M.D., Kalamazoo, publications committee; Warren W. Babcock, M.D., Detroit, finance committee, and Robert J. Mason, M.D., Birmingham, county societies committee.

Seek Information on Need for Loan Fund for New Physicians

A Committee to Study Establishment of a Loan Fund for New Physicians has been established by The MSMS Council as a result of the 1961 House of Delegates Resolution No. 1.

The resolution noted that some physicians in Michigan need financial help to establish themselves in the private practice of medicine and that the lack of funds may encourage some physicians to accept panel type practice. The resolution suggested that MSMS might establish a loan fund for physicians beginning medical practice. The 1961 House of Delegates Reference Committee directed that "a critical survey" be made of the need for this project before action is taken.

The Study Committee, chaired by Norman D. Henderson, M.D., Lansing, came to the conclusion that "the critical survey" could best be accomplished by contacting MSMS members regarding their own experience or knowledge of need for such a loan fund.

The committee requests each member of MSMS to communicate his views to Doctor Henderson. The committee is particularly interested in the need, or lack of need, for a loan fund based on personal experiences.

Replies are requested by November 15, 1962. Address to Loan Fund Committee, N. D. Henderson, M.D., Chairman, Box 152, East Lansing, Michigan.

Welcome, New Members

The following new members are enthusiastically welcomed into the Michigan State Medical Society. In some cases, the specialties for the doctors were not given and thus cannot be reported below:

James M. Barnett, M.D.
2416 Peck Street
Muskegon Heights, Michigan

Douglas H. Blanks, M.D.
3955 Fort Street
Lincoln Park, Michigan
(Allergy)

Frank S. Blumenthal, M.D.
261 Brady
Detroit 1, Michigan

Malcolm D. Boesky, M.D.
26789 Woodward Avenue
Huntington Woods, Michigan
(Psychiatry)

Gregoire Bolduc, M.D.
7006 Cranwood Drive
Flint, Michigan
(Obstetrics-Gynecology)

Earnest Booth, M.D.
Woman's Hospital
Detroit 1, Michigan
(Pathology)

Thomas A. Bruce, M.D.
Detroit Receiving Hospital
Detroit 26, Michigan

George Chabator, M.D.
294 Benjamin Street
Romeo, Michigan

Vincent V. Chen, M.D.
987 E. Jefferson
Detroit 7, Michigan

Adolfo M. Chipoco, M.D.
25210 Grand River
Detroit 40, Michigan
(Surgery)

Victor F. Doig, M.D.
19676 Dale
Detroit 19, Michigan
(Thoracic Surgery)

Miles A. Erickson, M.D.
1932 Ford Avenue
Wyandotte, Michigan

James L. Feeney, M.D.
Mill Street
Adrian, Michigan
(Internal Medicine)

Philip J. Feringa, M.D.
20901 Moross Road
Detroit 36, Michigan

Olga Freilich, M.D.
Detroit Memorial Hospital
Detroit 36, Michigan

Leonard Goldman, M.D.
8830 W. McNichols Road
Detroit 21, Michigan

David C. Gustafson, M.D.
1 Lafayette Plaisance
Detroit 7, Michigan

Winston B. Jackson, M.D.
2425 Oakman
Detroit 38, Michigan

Raymond V. Jungwirth, M.D.
19350 W. McNichols Road
Detroit 19, Michigan
(Surgery)

James N. Kaufman, M.D.
425 Cutler Street
Allegan, Michigan
(General Practice)

Roger G. Klaiber, M.D.
5766 Hereford
Detroit 24, Michigan
(Pediatrics)

Kenneth H. Knoblauch, M.D.
952 Fisher Building
Detroit 2, Michigan

Joseph M. Kopmeyer, Jr., M.D.
17632 Grandville
Detroit 19, Michigan
(Internal Medicine)

Steven Korpi, M.D.
1865 Evergeen Park
Decatur, Michigan
(Obstetrics-Gynecology)

Charles J. Krawec, M.D.
Mt. Carmel Mercy Hospital
Detroit 35, Michigan

Richard L. LaMont, M.D.
861 Monroe
Dearborn, Michigan
(Orthopedic Surgery)

Lawrence A. Lauretti, M.D.
936 Second Street
Muskegon, Michigan
(Obstetrics-Gynecology)

Charles Levi, M.D.
8262 E. Twelve Mile Road
Warren, Michigan

Kenneth D. McGinnis, M.D.
Henry Ford Hospital
Detroit 2, Michigan
(Roentgenology-Radiology)

Parviz Meghnot, M.D.
1800 Tuxedo
Detroit 6, Michigan

Charles G. Mendelson, M.D.
Henry Ford Hospital
Detroit 2, Michigan

Frank J. Moran, M.D.
27459 Five Mile Road
Livonia, Michigan

Warren S. Nesbit, M.D.
474 Fisher Building
Detroit 2, Michigan

Paul N. Neufeld, M.D.
19467 Livernois
Detroit 21, Michigan

Vincent O'Shee, M.D.
8216 E. Twelve Mile Road
Warren, Michigan

Thomas J. Petz, M.D.
1139 David Whitney Building
Detroit 26, Michigan
(Internal Medicine)

Frederick E. Robertson, M.D.
14001 Greenfield
Detroit 27, Michigan
(Internal Medicine)

Robert Rooney, M.D.
23700 Van Dyke
Warren, Michigan
(Pediatrics)

Carl J. Sarnacki, M.D.
952 Fisher Building
Detroit 2, Michigan

David F. Simpson, M.D.
2761 Dorchester
Birmingham, Michigan
(Anesthesiology)

Andrew J. Smith, M.D.
2950 Puritan
Detroit 38, Michigan

Lewis P. Sonda, Jr., M.D.
5132 Allen Road
Allen Park, Michigan

Joseph W. Stern, M.D.
17563 Greenfield Road
Detroit 35, Michigan
(Obstetrics-Gynecology)

Thomas B. Stock, M.D.
19610 Middlesex
Southfield, Michigan

Robert E. Toel, M.D.
20953 Grand River
Detroit 19, Michigan

Edward J. Treisman, M.D.
15105 W. Seven Mile Road
Detroit, Michigan

John H. Vincent, M.D.
2608 Wesley
Saginaw, Michigan
(General Practice)

George J. Viscomi, M.D.
2021 Monroe
Dearborn, Michigan

Gerald S. Weinstraub, M.D.
13735 W. 8 Mile Road
Detroit, Michigan

Vernon E. Wendt, M.D.
Detroit Receiving Hospital
Detroit 26, Michigan
(Internal Medicine)

Alan Irving Zane, M.D.
Receiving Hospital
Detroit, Michigan



Many Rate Careers In Medicine Best

Medicine topped all other professions in a recent Gallop Poll to determine what the public believes are the best fields for young people to enter.

Respondents in the nationwide survey were asked which of nine professions they would first recommend to a young man seeking a career.

Of the respondents, 23 per cent listed medicine as the "best" profession, while 18 per cent favored engineering and 12 per cent preferred teaching. Thirty-six per cent were divided between the ministry, government service, law, business, dentistry, banking and "other." Eleven per cent offered no opinion.

In an identical survey made in 1953, medicine also topped all other professions as the most desirable, with 29 per cent of the respondents having placed it first.

Among respondents in the 21-29 age group, the medical profession was favored by 26 per cent, while teaching careers were favored by 18 per cent. Careers in engineering ranked third, with 17 per cent favoring them.

Medical Journals Favored As Communications Channel

Physicians make use of a variety of communication channels to keep abreast of medical advances.

A survey of physicians by *Patterns* asked which medium of communication they find most effective. Of the more than 5,000 who responded 40% indicated a preference for publications such as journals and books. 23% preferred courses in postgraduate or continuing medical education, 19% chose discussion with colleagues, 14% cited medical meetings, while 4% preferred programs for physicians on FM radio and closed-circuit television.

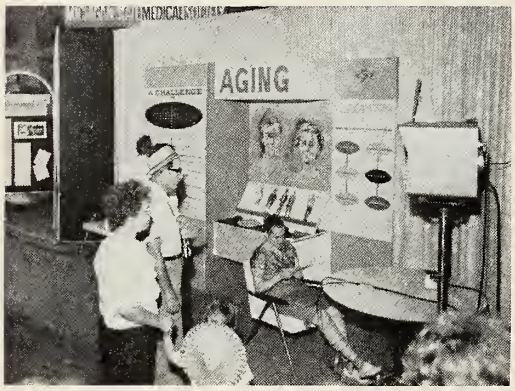
In an analysis of medical communication, *Patterns of Disease*, a monthly Parke, Davis & Company publication for the medical profession, reports that it would take a physician 3 years and 161 days to read all the physiologic literature published in 1960, assuming he read at a rate of 1 page every two minutes during an eight-hour day.

MSMS Exhibit Effective at State Fair



At right:

There was a constant lineup of people waiting at the MSMS State Fair Exhibit to have their blood pressures taken. In the background of the photo, assistant takes an accurate weight determination for a visitor.



Keen interest was shown in the special exhibit on Aging. Material about the Kerr-Mills program and other aid programs was distributed also at the MSMS Exhibit.



Not only children but adults, too, learned much about human anatomy by operating the AMA exhibit of the woman. The plastic surgery exhibit is seen at the left.

Doctors, Volunteers Staff MSMS Exhibit

Crowds in excess of one million attended Michigan's State Fair in Detroit last month, and a large percentage of this record-breaking number visited the Michigan State Medical Society's exhibit.

As in past years, the doctors were joined by volunteers from the nurses, medical assistants, and medical student associations, in staffing the striking display.

Divided into three areas, the MSMS exhibit featured displays on the subjects of aging and plastic surgery, but the "hit" of the entire exhibit hall was AMA's "transparent woman," Valentina. This attention-catching lady held crowds fascinated.

Serving yeoman duty in the oppressive summer heat, the nurses and medical assistants provided blood pressure determinations and weight readings for more than 5,000 patient "patients," in the course of the 11-day fair.

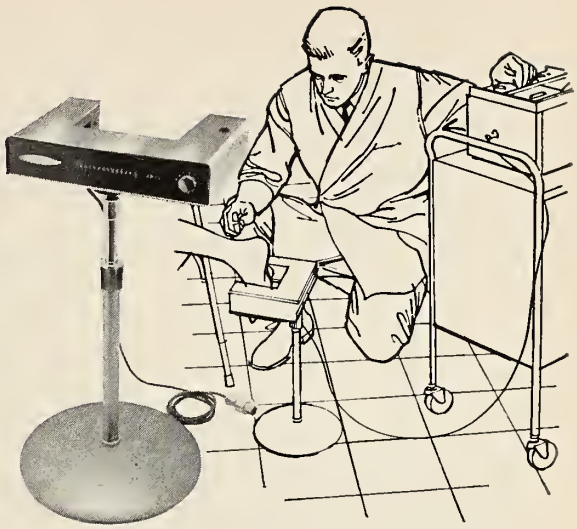
Chest Physicians to Promote Education re Smoking-Cancer

The Committee on Cancer of the American College of Chest Physicians for a number of years has been studying the effect of cigarette smoking on the pulmonary and cardiovascular systems. The members of the Board of Regents of the College are convinced that sufficient evidence has been accumulated to warrant issuing an official statement with regard to cigarette smoking and health. Accordingly, a resolution connecting cigarette smoking with various pulmonary and cardiovascular conditions was approved by the Board and issued by the College.

The resolution stated that the weight of scientific evidence distinctly indicates that cigarette smoking and the inhalation of other atmospheric pollutants have an association relationship which strongly suggests a casual connection with chronic bronchitis, pulmonary emphysema, cor polmonale, cardiovascular diseases and cancer of the lung.

The college in its official statement urged its members and the medical profession in general to intensify their educational campaign directed toward the public, and the youth in particular, relative to the hazards of smoking.

The College urges that efforts to control atmospheric pollution be encouraged and that support be given to endeavors in the field of research for additional scientific information concerning other etiologic agents.



a reliable 5-minute test for thyroid dysfunction . . .

with the Burdick FM-1 Photomotograph

Using an electrocardiograph as the recording unit, the Burdick Photomotograph can supply a reliable diagnostic test for thyroid dysfunction in less than five minutes by photoelectrically timing the Achilles tendon reflex.

Accuracy and reliability of the Achilles tendon reflex have been reported by a group using the Burdick FM-1 at New York University Medical Center. They point out this test is unaffected by most of the conditions which often invalidate other diagnostic procedures.

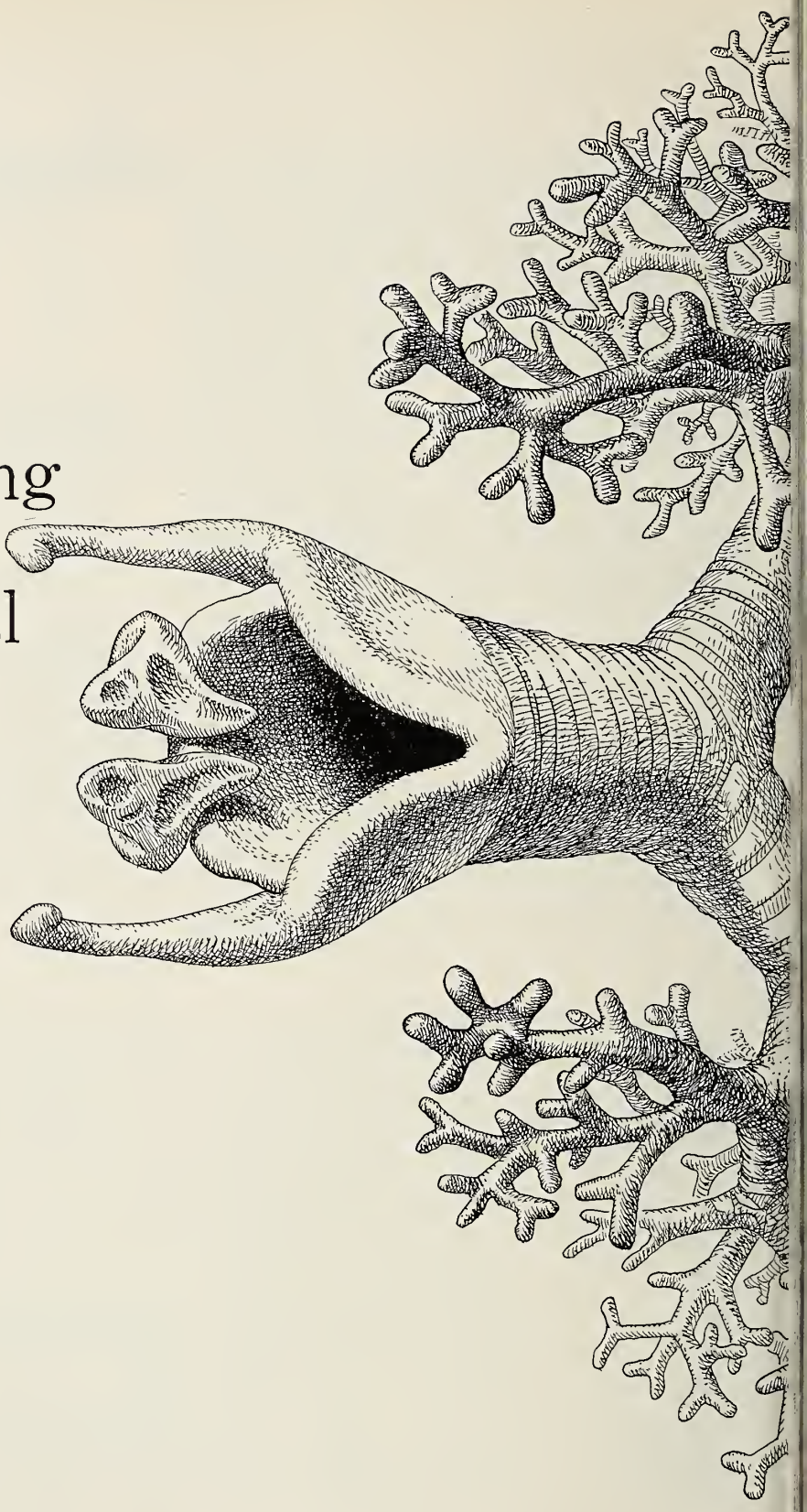
Other reports suggest this is the preferred test for screening thyroid patients and following their progress under medication.

For a demonstration of the FM-1 call your local Burdick dealer. No obligation, of course.

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relief
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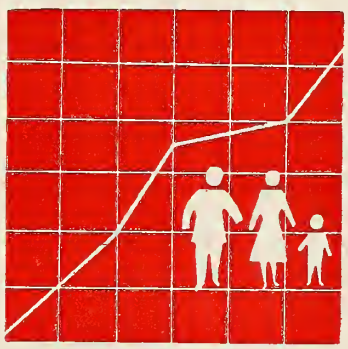
The Michigan State Legislature passed a bill which was signed into law by the Governor on May 31, authorizing the creation of professional service corporations. However, unless the Legislature specifies "immediate effect" for new laws, they do not become operative until ninety days following final adjournment of the session in which they were passed. The 1962 Legislature is not scheduled to adjourn until after Christmas; professional service corporations, therefore, cannot be legally formed until late March or early April, 1963.

A minimum of six months' time is available to physicians for familiarizing themselves with the provisions of Public Act No. 192 of 1962. The "Professional Service Corporation Act" is a complicated one, and the degree of advantage to an individual professional person or professional group in incorporating depends upon many factors. A careful study of the new law and its application in the light of each individual situation is desirable, for under certain circumstances professional incorporation can result in important tax benefits.

A definitive article by MSMS Legal Counsel Lester P. Dodd dealing with the implication of P.A. 192 will appear in a future number of THE JOURNAL. The Michigan Association of the Professions, which was instrumental along with MSMS in the passage of this law, is publishing a detailed analysis of the tax implications of the law in *Monitor*, the MAP Journal, prepared by eminent tax authority Mr. Arnold Lungershausen, Vice President, Detroit Bank and Trust Company.

Physicians will find a careful reading of these articles to be highly advantageous. The new law, as passed, is printed in its entirety in the August issue of MAP's *Monitor*, and copies may also be obtained from MSMS on request.

SOCIO ECONOMICS 1193



Kellogg Grant to Study Hospital Statistical Reports

A nation-wide centralized system of accounting and statistical reporting for American hospitals will be initiated by the Hospital Research and Educational Trust, Chicago, financed by a three-year grant of $376,170 from the W. K. Kellogg Foundation, Battle Creek. Under the system, hospitals submit raw statistical information to the Trust which then prepared, with automatic data processing equipment, statements for individual hospitals and comparative reports for groups of hospitals, according to Joseph H. McNinch, M.D., Director of the Trust.

"Aim of the program is to provide uniformity in accounting and record keeping, which will permit comparison and standardization of hospital procedures," Dr. McNinch said. "This in turn will contribute to more efficient hospital operation."

HAY FEVER • ASTHMA

How to restore your patient's allergic balance the "classic" way . . . use specific desensitization for

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Because of the importance of the project to Michigan hospitals, the Michigan Hospital Association will provide $24,000 and the Michigan Hospital Service (Blue Cross) $75,000 to support the work in that state during the three years of the project.

Four Doctors Named to State Advisory Group on Health Care

Four doctors of medicine are among the 25 persons appointed by Governor Swainson to the 25-member advisory commission health care. The commission has been asked to review the findings of the Bowles commission on prepaid hospital and medical care plans.

Selected were Albert E. Heustis, M.D., State Commissioner of Health; Harold F. Falls, M.D., chairman of the MSMS Committee on Medical Socio-Economics; Sidney Adler, M.D., president of Michigan Medical Service, and Ira McCoy, M.D., Bad Axe.

D. B. Varner, chancellor of Michigan State University-Oakland, at Rochester, was named chairman.

Blue Shield Payments Climb

The 74 Blue Shield Plans in the United States and Canada paid out more than $231,500,000 for care to members during the first quarter of 1962. The 74 Plans paid out more in the first three months of 1962 than in all of 1952.

The payment of $231,507,028 to the Medical profession represented a record high for a three-month period, and represented almost 91 per cent of the total income of all Blue Shield Plans.

Teach Economics on TV

The nationwide "Continental Classroom" telecourses this fall include one on "American Economy" presented in the Detroit area by WJBK-TV and WTVS. Many of the metropolitan area colleges are offering credit for the course. The WJBK-TV channel 2 offers the program at 6:30 a. m., and WTVS at 6 p.m. Presented by the Learning Resources Institute, the course seeks greater understanding on behalf of the general public and all teachers of the American economic system.

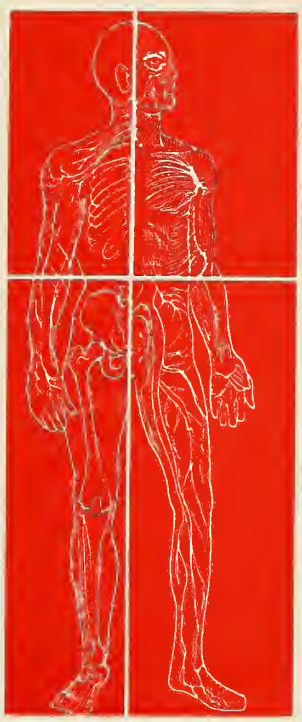
DOCTOR—DON'T FAIL TO VOTE!

Socialized Medicine could come.

Diabetes—1962

Fred W. Whitehouse, M.D.
Detroit, Michigan

CLINICAL 1199



This biennial issue includes several essays which highlight the current thinking of physicians who have a special interest in diabetes. It is hoped that all physicians will be aided in the care of their diabetic patients by these brief reports. Diabetes is ubiquitous and it is the responsibility of physicians, experienced by time or concentraton of effort in the care of the diabetic, to share their opinions with the general physician, for this physician ultimately cares for the majority of all diabetics.

Doctor Bryan summarizes the methods of identifying the diabetic, emphasizing that every known diabetic is matched by one with undiscovered diabetes. Many of the problems of the young diabetic are covered by Doctor Thosteson. He outlines guideposts for improved care. Doctor Segar's succinct review of renal disease associated with diabetes serves to remind us that diabetic nephropathy is the major cause of death of the young diabetic and is surpassed only by coronary artery disease in the older diabetic. Pathologic material studied by electron microscopy has directed our attention to the basement membrane of the glomerulus as the initial site of injury. The probable universality of this capillary lesion is suggested by Doctor Redfern's discussion of cranial neuropathy which may pose a difficult problem in differential diagnosis. Doctor Hennes calls our attention to a cause of "brittle" diabetes that is too often forgotten. Intermittent glycosuria and worsening control with increasing dosage of insulin are the hallmarks of paradoxical hyperglycemia. Sometimes we must lower the insulin to lower the blood sugar!

The intriguing relationship of cancer and diabetes, still incompletely understood, is commented upon by Doctor Gothard. In some mortality studies, 10 per cent of all diabetics succumb to cancer.

Therapeutic notes for the physician include the treatment of hypoglycemia with glucagon and a rational approach to the care of the "diabetic foot." Doctor Lowrie points out that anyone can cut off a leg, but it takes skill, patience and a little bit of luck to save a foot. The writer prefers to use uncontrollable pain, uncontrollable infection or extensive tissue destruction (gangrene of the foot—not just a toe) as indications for amputation of the leg. A knee-sparing operation is favored.

Finally, I would be remiss in failing to call the reader's attention to the truly significant contributions in the field of diabetes by Doctors Conn, Fajans and associates of the University of Michigan. They have presented a broad concept of diabetes consistent with current knowledge. They emphasize the genetic base, the pathogenetic role of stress, and the need to identify the genotype. Such identification may permit prevention of phenotypic expression. The reader is urged to consult the most recent summary of their thinking (Amer. J. Med., 31:839-50, Dec. 61). We shall look forward to progress reports from their laboratory.

All of us working with diabetics hope that vigorous detection programs will lead to early diagnosis, hence early treatment. Currently, this is the best way to minimize morbidity and mortality. Medical costs in the community being what they are, diabetes, while not contagious, is becoming a health problem with which all must be concerned.

Health and Safety Tips (Football)

Football time is here again. All over the land American males are tossing and kicking and running with footballs, all the way from the eight-year-olds in the backyard to junior and senior high and college teams to the big bruisers of the professional leagues.

Football is a rough contact sport and inevitably will produce its full quota of bumps and bruises, strains and sprains, cuts and gashes. Most of these aren't serious and the lads concerned are back in the game shortly.

A thorough physical examination is highly important for boys preparing to go out for football. Take your boy to the family doctor and ask him to make certain that the lad has no physical conditions that should be noted before he begins the rigorous training and hard knocks of the game.

Proper physical conditioning hardens the body and increases resistance to fatigue, thus helping to prevent injury. A minimum of three weeks of conditioning is recommended prior to the first game of the season. Coaches and doctors are alert to the fact that many injuries occur when the player is tiring and thus less alert. The coaches are quick to make substitutions when a player begins to slow down.

Careful coaching enables the players to perform better and thus become less prone to injury. Most of the regular school teams have proper coaching today, and the coaches are more than ever before alert to methods of safeguarding their players from injury.

Good officiating makes for better games and also helps to protect players. Officials in the organized schoolboy and college leagues must meet careful standards. Proper equipment and facilities also are important to reduce injuries. Schools sometimes fall down in this respect by using worn and decrepit equipment for practice sessions and for the B-team players. Pads that slip out of place leave knees and shoulders unprotected.

Good medical care, with a physician in attendance for practice drills and games, is a final major factor in cutting down on serious injuries.

If your boy is playing with an organized school team, the chances are good that all of these safeguards are observed. If most of his playing is done on a vacant lot in the afternoons and on Saturdays, it becomes the parents' responsibility to see that the player has good equipment and that he quits before becoming too tired.

For the Physician Who May Have Forgotten How to Diagnose Diabetes

John B. Bryan, M.D.
Detroit, Michigan

"DIABETES is a neglected disease," observed an editor in the *New England Journal of Medicine*, February 22, 1945.[1] In accord with this attitude, physicians with a special interest in diabetes, working largely with the affiliate societies of the American Diabetes Association, have carried on extensive and continuing detection programs in search of all unknown diabetics. The compelling motivation for early detection in these persons is the initiation of adequate therapy at the earliest recognizable moment, thus hoping to reduce the morbidity and mortality of this disorder. After more than a decade of these detection programs, Wilkerson and Krall[2] showed that the typical U. S. community STILL has one unknown diabetic for each known case. Is then such editorial comment appropriate today? The purpose of this paper serves to remind every physician of his responsibility in the discovery of the unknown diabetic. To assist him, the current reliable methods of establishing the diagnosis of diabetes mellitus are reviewed with special comment about diagnostic pitfalls.

Clinical Data Leading to Diagnosis

The majority of unknown diabetics are blood relatives of known diabetics.[3] In reviewing the medical history of all patients, the family history regarding diabetes should be routine. Alerting a known diabetic of the hereditary possibilities of his disorder will frequently stimulate him to recognize symptoms and signs in relatives and to urge their referral for medical evaluation. It is not out of order, in this "do-it-yourself" era, to encourage periodic, post-prandial urine testing of immediate-family members by informed diabetics.

The clinical symptoms and signs of diabetes are protean and variable in degree, not being reliable indices of the length of time the diabetic state has been present or of the "severity" of the disturbance. However, it is easy to delineate the classical, overt state, traditionally recognized as diabetes mellitus, by clinical means alone. The asymptomatic sub-clinical syndrome, equally as germane to the development of subsequent complications, may be suggested by transient, periodic or very mild symptoms. Table I lists revised, updated "classical" symptoms and signs, as well as other clinical findings by which new diabetics have presented to the author and his colleagues.

TABLE I. CLASSICAL SYMPTOMS AND SIGNS OF DIABETES MELLITUS

1. "Triad of polys"—Polyuria, Polydypsia and Polyphagia.
2. Energy and weight loss.
3. Coma, resulting from ketoacidosis.
4. Tendency to infections (skin, URI, urinary and genital).
5. Poor healing of wounds.
6. Acute myopia and/or retinal microaneurysms (diabetic retinopathy).
7. Unexplained complications of pregnancy:
   (a) Maternal—Miscarriages or polyhydramnios.
   (b) Fetal—Intrauterine death near or at term, congenital anomalies or excessively large babies (over 9 pounds at term).[4,5,6]
8. Gangrenous changes in lower extremities.

Less frequent, but strongly suggestive:

1. Molecular palsies or any isolated cranial neuropathy.[7]
2. Nocturnal paraesthesias in lower extremities (frequently accompanied by pain, simulating spinal-cord compression).
3. Nocturnal diarrhea.
4. Isolated neurogenic bladder and/or male impotence.
5. Calcification of vas deferens (pelvic X-ray of male).
6. "Functional" (stimulative) hypoglycemia, particularly when accompanied by renal glycosuria (and family history of diabetes).[8]
7. Glycosuria, during pregnancy.[9,10]

In general, it can be said that diabetes is easily recognized in children and teen-agers since the appearance of symptoms is usually explosive. In days, or at most weeks, the family of these youngsters note variation from normalcy and seek assistance. Presently, juvenile diabetes constitutes only 5 per cent of the total diabetic population, but with more diabetics surviving and procreating new diabetics and carriers of the genetic potential, the incidence will increase as the total diabetic population increases.

Unfortunately, most of the unrecognized diabetics are completely asymptomatic. To find these individuals, the physician must "play the odds" and look periodically to those statistically, most-likely to develop or show diabetes. The obese person should be highly suspect. It is an established fact that the incidence of diabetes and the chances of a person presenting with the morbid signs of the disease increases with advancing age.[11,12] Special note should be made that the highest yield of new diabetics occurs among nonwhite and Jewish families. Diabetes is not a disorder of poverty; rather one of plenty (with respect to diet). Any program of searching for diabetes in such "high incidence" groups will produce a higher yield than can be anticipated in any mass screening of the general population. Even "routine screening" of all admissions to hospitals, though probably an undue expense should find twice as many new diabetics as a general screening program in a community.[13] McCullagh and Zwickel observed this to be the case when they evaluated a large number of consecutive new patients admitted to the Cleveland Clinic.[14]

Since diabetes is frequently brought to a recognizable, clinical state at times of stress, the physician's greatest chance for demonstrating the entity will be on the occasion of acute illness, trauma, emotional upheaval, surgery or therapy with steroids. "Chemical diabetes" or transient, clinical diabetes should be considered as genetic diabetes and this individual followed periodically for development of the overt, clinical state. Experience shows that some patients may have had several such episodes over many years preceding the final establishment of the diagnosis.

Screening Methods

All glycosuria means diabetes until proven otherwise, but the absence of glycosuria does not rule it out.[15] In order to avoid confusion with other reducing substances in the urine, the simple, extremely sensitive and highly specific glucose-oxidase impregnated strips (for example, Tes-Tape® or Clinistix®) serve to identify glycosuria.

Unless the fasting urine shows glucose, it is useless as a screening specimen. The long experience of the American Diabetes Association sponsored detection programs has shown that, though inadequate of itself, the only helpful urine sample is that taken aften a full meal. In another study at the Cleveland Clinic, McCullagh's group demonstrated the frequency of the presence of diabetes in patients who had a negative urine for glucose during screening on admission.[16]

Evidence is mounting that the only reliable screening test is a blood sugar taken two hours after a full meal.[17] A fasting blood sugar is of no value, unless there is glycosuria in the fasting state.

Table II gives a simple plan for screening persons for diabetes in the physician's office or hospital.

TABLE II. PLAN FOR SCREENING FOR DIABETES

1. As "routine" and in "suspects" . . . test urine p.c. 100 gm. CHO meal (use "specific" glucose methods—Tes-Tape or Clinistix).
2. Do FBS only if fasting urine shows glycosuria.
3. Do 2 hr. p.c. 100 gm. CHO meal venous blood sugars as best screening method.
4. Do G.T.T. in borderline states.

Establishing the Diagnosis

The clinical picture is usually supported by the finding of glycosuria and an elevated post-prandial blood sugar. In such instances, a glucose tolerance test is not necessary. To avoid the possibility of an incorrectly identified blood sample, it is wise to do a second post-cibal blood as well as urine examinations for sugar at various times during the day to assess the pattern of glycosuria. At this point, there should be no doubt about the diagnosis.

The finding of glycosuria in an asymptomatic person calls for the same approach. Only in instances when the post-prandial blood sugar is borderline and clinical symptoms are lacking is it necessary to subject the individual to a standard glucose tolerance test. By standard, I refer to either an oral or intravenous glucose load with observation of the blood sugar at hourly intervals thereafter for three and two hours respectively. In the oral test the peak generally is observed in one hour, whereas, a half-hour determination is needed in the intravenous test. The oral "meal" should contain at least 100 grams of carbohydrate, whether it be Dextrose or Sucrose in a flavored drink, candy bars, or a breakfast eaten quickly. Urine specimens with each blood sample will give a rough gauge of the renal threshold for glucose. Blood glucose values will vary depending upon the method employed by various laboratories. Table III reviews reliable criteria for establishing the diagnosis of diabetes. Special reemphasis of the importance of avoiding restriction of carbohydrate prior to post-prandial or formal testing of glucose tolerance is demonstrated by Table IV, which shows a distinctly "diabetic curve" after the patient had been on a high protein, low carbohydrate diet for "stimulative" hypoglycemia and the nondiabetic curve after several days of refeeding.[18] Rather

frequently, a patient will "restrict sweets and starches" on his own if he has suspected the presence of diabetes, prior to reporting for evaluation.

Finally, it is essential for the physician to recognize even the mild "diabetic curve" and inform the patient of the correct diagnosis. Occasionally, a follow-up report from a person's physician will be received during a mass screening program, indicating that the patient "does not have diabetes" and he is told so, when his post prandial urine test was strongly positive for glucose and a follow-up glucose tolerance test was such as is shown in Table V. Additional investigation proved that this man had diabetes. In the instance of women showing glucosuria during pregnancy, they should probably be considered potential, genetic diabetics and be followed periodically, particularly if the birth weight of the infant exceeds 9 pounds. With application of the above recommended technique and careful interpretation, the physician should not be concerned about "over-diagnosing" diabetes.

TABLE III. RELIABLE METHODS OF ESTABLISHING DIAGNOSIS OF DIABETES

1. Blood sugar elevated 2 hours p.c. 100 gm. CHO meal.

Testing Method	*Greater Than:*
Folin-Wu—whole blood	120 mgm. per 100 cc.
—Serum	140
Somogyi-Nelson—whole blood	110

2. G.T.T. . . . "Key Values" (not to exceed)

		Oral	*Intravenous*
*whole blood (Folin-Wu)	F	120	120
	30 min.	.....	200
	1 hr.	200	.....
	1-½ hr.	.....	120
	2 hr.	120	.....

*Serum (Folin-Wu) by modified Hagedorn-Jensen—add 18% "true sugars" by Somogyi-Nelson—less 10%

3. Above "Fit Clinical Picture".

Confirmatory support for the diagnosis of diabetes can be further demonstrated by the use of intravenous tolbutamide loading. It is this author's opinion that this should not be substituted for the above-discussed methods. It is generally reliable in showing a failure of the insulin-dependent diabetic to respond to this drug's beta-cytotropic effect on the pancreas, but the maturity-onset, plethoric, adult diabetic may show a very brisk drop of the blood sugar after tolbutamide administration. The test is done in the fasting state. A fasting blood sample is obtained. One gram tolbutamide (lesser amounts in children) is given (intravenously) in a few minutes. A drop of the blood sugar of less than 20 per cent below the fasting level in 20 to 30 minutes is suggestive of diabetes.[19]

Up to now, this discussion has related to overt, clinical diabetes. There is evidence accumulating to show that the disorder in diabetes preceeds the presently-recognized clinical state and chemical disturbance of carbohydrate metabolism. The Cortisone (Stress) Glucose Tolerance Test contributed by Conn and Fajans[20,21] serves well to document "potential" and/or "pre-diabetes", but this only takes the diagnosis of diabetes "one step back (or earlier)." Other methods of evaluation must be forthcoming to point to genetic defects preceding this and suggest therapy to abort the glucose disturbance. For now, the Cortisone Glucose Tolerance Test functions mainly as an investigative tool for the clinician. No methods of evaluating the defects in handling of protein and fat that accompany the glucose defect in diabetes are easily available to the practicing physician. Similarly, assays of circulating insulin and "antagonists" are not essential to proper diagnosis of diabetes.

TABLE IV. G.T.T.—IMPORTANCE PRE-TESTING CHO FEEDING

G B. (HFH # 20 85 12)

	*After 75 gm. CHO/d** *(serum sugars)*	*After 300 gm. CHO/d* *(serum sugars)*
Fasting	75	85
1 hr.	205	145
2 hrs.	180	115
3 hrs.	160	125

*Dietary Rx for "stimulative" hypoglycemia.

TABLE V. THIS IS DIABETES MELLITUS

53 Male, F.H. DM, not obese.
G.T.T. 100 gm. CHO test meal p.o. (testing method)

Fasting	79	
30 min.	149	
1 hr.	170	(trace glycosuria)
2 hrs.	145	
3 hrs.	83	

Summary

Application of the clinical clues to diabetes, and screening diabetic suspects with post-prandial urines and blood sugars after an adequate diet will aid the practicing physician in finding all the unknown diabetics in his practice. Attempts to prove the presence

or absence of diabetes on the basis of urine testing alone, fasting sugars only, or the clinical symptoms and signs without proper confirmatory laboratory testing will lead only to confusion and failure. Elaborate studies do not replace reliable, routine methods.

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More Seniors Enroll for Army Medical Training

One hundred and two college seniors are currently enrolled in medical schools throughout the United States and Puerto Rico under the Army Senior Medical Student Program.

The program, which has increased by 34 students since last year, provides full pay and allowances to medical students in their senior year, and also furnishes the Army Medical Service with potential career officers.

To become eligible, a student must not have passed the age of 30 prior to date of appointment, and to have successfully completed his junior year of medical school. He will then be commissioned as a lieutenant in the Medical Service Corps Reserve, and will serve in this capacity during his final year of medical school.

Concurrent with graduation from medical school, the student will be appointed as a 1st lieutenant in the Medical Corps with an obligation to participate in the National Intern Matching Program. In addition, he must serve on active duty for three years immediately following military or civilian internship.

Participants who are not matched for an Army internship are released from active duty for one year to allow them to complete a civilian internship, and are then recalled to active duty for three years at the end of the 12-month period.

Further details are available from The Surgeon General, Department of the Army, Washington 25, D. C.

Observations on the Young Diabetic Child

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ONE CHILD in 3000 has diabetes mellitus and approximately 5 per cent of all diabetics are under the age of 15 years. This group presents certain problems not found in the adult, maturity onset diabetic. The problems evolve from a changing physiology as well as the usual psychological factors of growing up. Ordinarily, the newly discovered juvenile diabetic is not too difficult to control. Sixty per cent of juveniles will have the onset of diabetes (gross manifestations of the disease) between the ages of four and 12 years. Ketoacidosis is the clinical pattern usually seen first. Correction of this with hydration, diet and insulin is readily achieved. All juvenile diabetics require insulin and the parents should be advised of this at the onset. Initial treatment of the child and indoctrination of the parent and the child is best accomplished in the hospital. The clinical condition of the child invariably demands this. When insulin injections are given initially by the nurse, the child will not relate this procedure to the parent as a painful or traumatic gesture. Expert instruction in the diet individually or in classes can be accomplished by the hospital dietitian.

It must not be forgotten, however, that the diabetic child is still a child, and should not be regarded as a caldron of metabolic confusion. He still has the whims of youth and adolescence to face along with this new thing, diabetes.

Eating may become the first problem. The modern diabetic diet is not a queer thing. There are certain limitations that the child should be taught and which he soon learns to accept. As with normal children, there are quirks of appetite that must be recognized. Between the second and sixth year, when there is a lull in growth, there may be loss of appetite. At this time food should not be forced. Every effort should be made to have regular meal hours without between meal snacks. The child does not require as much food at this point, hence insulin dosage may have to be decreased to avoid hypoglycemic reactions.

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At age seven to eight, another growth spurt occurs which lasts through puberty. Appetite will increase because of a natural demand for food. Protein should be adequate at this period. The child's diabetic diet should be reviewed periodically and adjusted to meet the normal physiological needs. A practical formula consists of allowing 1000 calories for the first year of life and adding 100 calories for each year of age up to the twelfth or fourteenth year. Obesity which is common in preadolescence should be avoided.

Parents should be informed in the beginning that a child's insulin requirement will increase with time and growth and that this does not necessarily reflect an increasing severity of the disease. The need for more food is one reason for this increase. Another factor is the antagonistic effect of the pituitary growth hormone on insulin action. A third possible factor increasing insulin dosage is the binding of insulin by antibody formation. This increasing need can reach a considerable magnitude and undoubtedly accounts for the large doses of insulin needed by some individuals after a year or so of treatment. After maximum growth is attained, both insulin and caloric requirements often decrease.

The usual problems of adolescence affect the diabetic child as well. Like his non-diabetic friend, he may be a Mr. In-Between. The diabetic has a dual adjustment at this point, not only to life but to his disease. In some, resentment may run high and continuous to the point that metabolic control is lost. After years of supervision by the parent as to diet and insulin, there may be an overt rebellion by the child to his diabetes. Attempts to conceal the disorder, yet keep up with the crowd, can cause conflict. He may well know his dietary limitations, yet the temptation for extra food and drink is there. He is inclined to go along with the group and may try to compensate for overindulgence by taking more insulin. This invariably leads to poor control. Some avow their strict conformance yet indulge in all the caprice the youthful mind can conceive. Accusation by parent or physician accomplishes nothing. In fact, it may heighten resent-

ment. The physician may well suspect gross deviations from the prescribed routine but his attitude should always command respect from the youngster. The child probably has had enough bickering at home. If the diet is not adequate or if school, work or athletics create an eating problem, adjustment of the diet or the insulin may solve the problem. An instance of poor control in a seven-year-old featured by unstable diabetes and frequent insulin reactions was corrected by changing schools. The boy's classwork improved, and the diabetes was stabilized. While there are many "do's and don'ts" for the diabetic, perhaps the most important "do" in order to obtain smooth control is regularity of routine (meals and exercise).

Lipodystrophy is a complication of insulin therapy which is especially distressing to young women. Lipoatrophy of the legs and thighs is seen primarily in female patients and young boys. It can be a cosmetic catastrophe. Treatment is not satisfactory. Avoidance of refrigerated insulin, greater variation of injection sites, and the use of more concentrated insulin preparations are the procedures usually advised. In this respect, when a large single dose of a depot insulin (NPH or Lente) is failing to achieve control, a smaller second dose of depot insulin is often given at the evening meal. This not only creates a second injection but increases the risk of lipoatrophy. In about 80 such cases, the writer has had equally good or better control in 75 per cent of instances with the use of Lente and Ultralente insulin combined as a single injection before breakfast. The majority of these cases were juveniles, many with lipoatrophy. Examples of this:

Marge M., age 25 years
On 30 u. NPH: FBS=204 mg%; urine: heavy glysocuria.
On 22 u. Lente plus 2 u. Ultralente: FBS=114 mg%; 4 p.m. BS=130 mg%.
Susan J., age 7½ years, weight 53 lbs., height 49½ inches
On 16 u. NPH: FBS=256 mg%; 4 p.m. BS=257 mg%
At age 8 on 18 u. Lente and 4 u. Ultralente: FBS=58 mg%
At age 9 on 20 u. Lente and 12 u. Ultralente: FBS=104 mg%. Weight 63 lbs.; Height: 52 inches.
Note growth spurt in 2½ years, with increase of insulin dose.

The responsibility of management of the diabetes should be shifted from the parent to the child as early as he shows willingness to accept it. Self administration of insulin, attention to urine tests, appropriate dietary selections raises self confidence and is conducive to better discipline. The path of the juvenile diabetic can be very rugged. It can be a trying experience for the patient, the parent and the physician. When an adult pattern of living is reached, the path often becomes less rocky and, at the same time, the benefits of early meticulous care are manifest.

Pre-marital Examination for Women

"The pre-marital examination for women should go far beyond the minimal requirements of the law," according to a physician at The University of Michigan Medical Center.

In addition to the compulsory physical and blood test, the examination time should also serve as a counseling session, advises Tommy N. Evans, M.D., Ann Arbor.

Pre-marital medical aid and advice "can be an important part of the preparation for the responsibilities of marriage and parenthood," Dr. Evans concluded on a recent University radio broadcast cosponsored by the State Medical Society.

"Despite living in an era of emphasis on education," he says, "essential knowledge for a successful marriage is not easily acquired by young people." He urges the physician and patient to use this opportunity during the pre-marital exam to eliminate fear, correct misinformation, detect disease in its early stage, and uncover any physical defects.

"Dispelling unfounded fear about pregnancy is another important part of pre-marital counseling," the U-M physician explains. Women need reassurance that they have no physical reasons to keep them from having children. Many want advice on how to control or space their pregnancies.

Dr. Evans says that any serious physical defects uncovered in the examination should be corrected before marriage.

Renal Lesions Commonly Associated With Diabetes Mellitus

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AMONG the many serious systemic complications occurring with great frequency in diabetic patients, renal disorders have the highest incidence. Any form of kidney disease may be observed in diabetes. However, there are certain pathologic entities of the kidneys that occur with greater frequency in these patients. A few years ago Dr. Howard Root, working in the Joslin Clinic, recognized this fact and coined the term diabetic nephropathy.

Diabetic nephropathy includes the following renal lesions, any one or all of which may be present in the same patient.

1. Presumably reversible metabolic phenomena.
   (a) Glycogen deposits in tubules.
   (b) Lipid deposits in tubules.
2. Arteriolosclerosis of the kidney.
3. Arteriosclerosis of renal arteries.
4. Acute and chronic pyelonephritis.
5. Necrotizing renal papillitis.
6. Kimmelstiel-Wilson syndrome (intercapillary glomerulosclerosis).

Metabolic Phenomena

Diabetic nephropathy with retinopathy and neuropathy constitute the so-called triopathy of major complications in diabetes.

Glycogen deposits in the renal tubules are found in the presence of glycosuria and disappear with control of this state. In itself, this is of no serious moment. Lipid deposits in the tubules are evidence of injury to the tubular epithelium frequently associated with ketosis. They usually clear up completely with improvement of the systemic disease state which has initiated them.

Arteriolosclerosis of the Kidney

Nephrosclerosis, the term applied to lesions of the renal arterioles, appears at an earlier age and is commoner among diabetics than those without the disease. In addition, diabetics with nephrosclerosis demonstrate involvement of the afferent as well as the efferent arterioles. In a series of well-documented cases studied by E. T. Bell, these lesions began to appear in the third decade. By 50 years of age, arteriolosclerosis was present in 71 per cent of the diabetics. A comparable group of non-diabetics of the same age, showed only a 16.3 per cent incidence of this abnormality. Hypertension may be a factor in the relationship of this lesion to diabetes, but arteriolosclerosis also occurs frequently in normotensive diabetics. The available data, Doctor Bell feels, indicate that diabetes enhances the intimal changes in the arterioles, which in time results in hypertension. There appears to be no relationship between the severity of the diabetes and the degree of arteriolar involvement. These lesions have been found to be extensive in patients whose metabolic disorder was clinically mild enough to be controlled by diet without insulin.

Arteriosclerosis of the Renal Arteries

Arteriosclerotic disease of the kidneys is much more severe in diabetics than in normotensive non-diabetics. Pathologically, there is thickening of the intima of the small renal arteries. It may be argued that, because hypertension is more prevalent among diabetics, this factor, rather than the error in carbohydrate metabolism, is the cause of arteriosclerosis. Those patients with inability to utilize glucose properly present early arteriosclerosis in the coronary, cerebral

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and peripheral vessels as well as the renal arteries. Thus the conclusion is inescapable that the disease itself, and not hypertension, is the etiology of renal arteriosclerosis. It is further evidence that diabetes is a disease of the total metabolism, rather than simply an inability to utilize carbohydrates properly. The factors discussed so far, while significant, may be briefly dismissed as of lesser clinical importance than the remaining aspects of the diabetic nephropathy. These will be considered in somewhat more detail.

Pyelonephritis

The predisposition to infection which is one of the accompaniments of diabetes, renders diabetic patients more susceptible to invasion of the kidney by microorganisms. Pyelonephritis is probably the most frequent serious complication of diabetes coming under the physician's care. It may be chronic, acute or fulminating, and either unilateral or bilateral. Bacteria may reach the kidneys from distant foci through the blood stream, the so-called hematogenous route, or the infection may be of an ascending type. The latter means of dissemination is accomplished by way of direct spread up the ureter or through the periureteral lymphatics.

Hematogenous infections often have their origin in the furuncles and carbuncles so commonly seen among diabetics. Tonsillitis, injuries, and the like, also serve as a source of infections of the blood stream. There is no clear differentiation between cortical abscesses of the kidney and pyelonephritis on the one hand, and pyelitis and pyelonephritis on the other. Cortical abscesses most often spread into the medulla of the kidney and thence to the pelvis. Pyelitis, by definition, involves the pelvis of the kidney, but, in its chronic form it invariably spreads to the parenchyma to become pyelonephritis.

The ascending route of infection in pyelonephritis is almost always associated with obstruction in the urinary tract. Obstructive lesions in the urethra, bladder, and prostate produce infections twice as commonly as does ureteral obstruction. This is largely due to the mechanical dilatation of the ureteral orifices, which occurs as the result of a distended, infected bladder, allowing reflux of infected urine.

The two commonest organisms found in pyelonephritis are (1) Escherichia coli, comprising 60 to 80 per cent of cases in the ascending type of infections, and (2) staphylococci, when the source of infection is hematogenous. The organisms less commonly responsible are Pseudomonas aeruginosa, Streptococcus fecalis and Aerobacter aerogenes.

Acute pyelonephritis is manifested usually by malaise, chill, fever, headache, prostration and costovertebral or flank tenderness and some dysuria. Examination of the urine shows pyuria, albuminuria and frequently microscopic hematuria. Bacteria can usually be found by culture. There is leukocytosis with increase in polymorphonuclear cells. There may be all degrees of symptomatology, from total lack of symptoms and signs to a severe fulminating infection.

Chronic pyelonephritis may follow an acute attack and be evidenced only by persistent or intermittent albuminuria and pyuria. As the disease progresses over a period of years there develops increasing loss of renal function. Eventually, nitrogen retention and uremia appear. Clinically, the disease, and pathologically the kidneys present findings indistinguishable from those of the terminal stages of chronic glomerulonephritis. The evolution of the disease is slow. Patients may have elevated blood levels of nitrogen with considerable loss of concentrating power of the kidneys for many years and remain in relatively good health. Hypertension is present in about 25 per cent of these cases.

Treatment in the acute phase is with selected drugs of the sulfonamide group or with an antibiotic, depending on the sensitivity of the etiologic organism. Removal of any obstructive factor must be undertaken. Resistant cases tax the therapeutic ingenuity of the physician, and the disease is likely to recur. Supportive measures are used as indicated.

Necrotizing Renal Papillitis

A special and extremely grave type of pyelonephritis is necrotizing papillitis, which is observed in about 30 per cent of diabetics studied post-mortem. This disease is characterized by an acute onset, with death occurring in a few days. Pyuria, hematuria, high fever and leukocytosis are present. Azotemia is common. Pathologically, this entity is a coagulation necrosis of the renal papillae. The necrotic papillae may slough out entirely. The outlook for these patients is very poor. Treatment should be vigorous, with sulfonamides and antibiotics. Papillary necrosis, while occurring in non-diabetics, has a much higher incidence in patients with diabetes. About two-thirds of all patients with necrotizing papillitis show evidence of disturbed carbohydrate metabolism.

At autopsy, about 17 per cent of all patients with diabetes present the kidney lesions of the Kimmelstiel-Wilson syndrome. This is a specific pathological entity found predominantly in diabetic patients, although in rare instances it has been found in patients

without diabetes. Arthur Allen states that he has seen only one case in a non-diabetic patient, and E. T. Bell reports only one case in a large and comprehensive experience. Horn, Smetana and others have reported a higher incidence in patients without diabetes. Goodof claimed that 30 per cent of non-diabetic subjects over 70 years of age present the lesion.

This condition was first described in 1936 by two pathologists, Kimmelstiel and Wilson. They reported unusual glomerular findings in autopsy material from eight cases, seven of which were of clearcut Clinical diabetes. Diabetes was not proven in the eighth case, but the pathologists were not able to rule out the disease. The kidney lesions consisted of spherical-shaped, nodular masses of hyaline material, appearing in the center of the glomerular lobules. In their original description of the disease which now bears their names, Kimmelstiel and Wilson stated that the nodular masses were due to hyalinization of intercapillary connective tissue. This view is not held today. Most students of renal pathology think that the hyaline material is vascular in origin, and that it originates in the capillary walls from a splitting of the basement membrane. Indeed, Bell states that there is no connective tissue in the intercapillary spaces and that the glomerular capillaries are held together by the glomerular epithelial cells. There is considerable support for this view.

These changes in the kidney rarely occur before 30 years of age. The maximum incidence is in the sixth decade of life. It is found twice as commonly in female as in male patients.

The hyaline material making up the nodular masses in the glomeruli has not been specifically identified, although it is thought to be a mucopolysaccharide. Of extreme interest and significance is the fact that it is indistinguishable from hyaline material found in the retina in patients suffering from diabetic retinopathy. The hyaline material is not the same as that commonly seen in the islands of Langerhans at autopsy of diabetic patients.

Clinically, there are no criteria to establish the diagnosis of intercapillary glomerulosclerosis from other kidney diseases, such as chronic glomerulonephritis, pyelonephritis and amyloid kidney. Depending upon the amount of renal involvement by these hyaline lesions, any degree of kidney disability may present itself. Albuminuria, failure of concentrating ability, nitrogen retention, hypertension and edema may be present, individually or in any combination. These cases most often terminate in uremia. Rifkin and his associates have reported that study of the urinary sediment reveals doubly refractile droplets in renal cells or casts. The droplets contain cholesterol esters in addition to neutral fats. These urinary findings were present in 40 of 44 cases demonstrating Kimmelstiel-Wilson lesions at autopsy. The remaining four cases, in which droplets in the urine were not observed, showed the anisotropic substances in the renal tubular epithelium. Unfortunately, in all cases in which the nephrotic syndrome is present—whether the syndrome is due to glomerulonephritis, lipoid nephrosis, syphilis, or thrombosis of the renal vein—there are found the same doubly refractile substances as described for intercapillary glomerulosclerosis.

Electrophoretic study of serum protein has shown a definite elevation of the alpha-2 globulin peak associated with a decrease in albumin. Further observation of a large series of cases is necessary before diagnostic conclusions can be drawn.

A frequently seen phenomenon in this syndrome is the definite and progressive improvement in the patient's tolerance for sugar. Insulin doses are decreased, and at times discontinued. This is not due to glomerular failure, where glucose is not filtered out of the blood stream. There is an actual diminution of blood sugar levels. Acidosis in these patients is rare. Why this increase of tolerance occurs is not clear, but some recent investigative work offers a possible explanation for this paradox. While studying the fate of insulin in the body and attempting to find its site and mode of action, workers noted that this hormone was concentrated in large amounts in the liver and kidneys of experimental animals, and there destroyed. This was ascertained by labeling insulin with radioactive I^{131} at the tyrosine rings and testing for its localization in the body. Because the renal function is markedly diminished in advanced intercapillary glomerulosclerosis, it was felt that insulin which is destroyed in appreciable amounts by the normal kidney was not disturbed. Thus this insulin is allowed to exert its effect in the peripheral utilization of carbohydrate.

Engelberg, working in Gofman's laboratory, studied abnormal lipoproteins in 17 cases of clinically suspected glomerulosclerosis. He found marked elevation of SF 12-20 class of lipoproteins in all cases and of SF 20-35 in nearly all cases.

The clinical diagnosis can be established only when the entire picture of renal failure is observed in a diabetic patient. Treatment is unsatisfactory. In the absence of specific therapy, symptomatic care and supportive management of the patient is indicated. This includes the usual management of cardiac failure, hypoproteinemia, hypertension, edema, albuminuria,

retinal changes, peripheral vascular disease and uremia, as well as the necessary treatment for the control of carbohydrate metabolism. Diet may become a difficult problem in patients requiring low salt and low protein intake as well as restriction of sugars.

Digitalis is used where indicated. Mercurial diuretics as well as acid salts, such as ammonium chloride, may be used as long as they are effective and when the patient is not azotemic. Also, under the same conditions, mictine or rolicton, may be employed. Rutin, hesperidin, and other substances of this type have not been of particular value. The outlook in the fully developed syndrome is poor, and patients die within a relatively short time, usually within two years.

Summary

Diseases of the kidneys commonly found as complications of diabetes mellitus are discussed. Intercapillary glomerular sclerosis, the specific diabetic lesion of the kidney, is discussed in detail.

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Importance of Co-Sponsored "Town Hall" Meetings Stressed

"We need meetings like this because too often we talk to ourself about governmental issues."

So stated Thomas Murphy, Saginaw attorney, as he opened a "Town Hall" meeting at Saginaw, Michigan.

The event was cooperatively sponsored by the Saginaw units of the Farm Bureau, Chamber of Commerce, Manufacturers Association and the Medical Society. The Saginaw Farm Bureau units planned the chicken dinner and arranged for the meeting at the 4-H Building at the Saginaw County Fairgrounds.

Mr. Murphy, in his opening comments, explained that "there is greater public interest today than ever before in local, state, national and world affairs." "And running through all these issues is the federal government taking greater control over our personal lives." Mr. Murphy, a member of the Saginaw Chamber of Commerce Congressional Action Committee, lauded the several groups for this joint approach to federal issues. Such meetings are necessary, he said, because too often we talk only to ourselves.

Diplopia Associated with Diabetes Mellitus

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DOUBLE VISION has long been a danger signal, and when this symptom is reported by a patient, the doctor must attempt to determine the cause.

Ophthalmoplegia results from a variety of conditions, among which diabetes mellitus ranks high. It must always be considered in the differential diagnosis of diplopia. The hypoglycemic diabetic may experience a transitory diplopia. This clears with correction of the hypoglycemia.

Ocular palsies were studied in 15 patients who were known diabetics or who were proven to have diabetes at the time of the studies. Of these patients, four were not aware of the diabetes until the diagnosis was confirmed by a glucose tolerance test. Neither the control of the disease nor the duration of known diabetes seemed to have any bearing on the development of the paresis.

The patients were predominantly in the fifth to seventh decades (ages were 51 to 78). There was one exception—a 24-year-old man who had known diabetes for 20 years—developed ocular palsy. In the survey of the 15 patients studied, there were 10 male and five female patients.

The left eye was involved in four cases and the right eye in nine cases, with two cases unrecorded. One patient had involvement of the third nerve and two years later developed a paresis of the fourth nerve.

Goodman et al quoted Von Noorden and Isaacs, saying that the sixth nerve was most often involved. Next in frequency of involvement were the third and fourth nerves.[1] In our series, eight patients had involvement of the oculomotor nerve, six with an abducens palsy and two had involvement of the trochlear nerve. One patient had a recurrence and another had involvement of the third, sixth and twelfth nerves simultaneously.

Pain had been reported to be prominent in the symptomatology in the development of diabetic ophthalmoplegia.[2,3] In our series, six had mild pain, one severe pain and nine were pain-free.

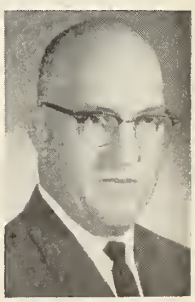
Goldstein and Logan noted the sparing of the pupil with oculomotor involvement. They believed that this was characteristic of diabetic ophthalmoplegia.[2] In 11 of our cases, the pupil reacted to light and accommodation. The pupils were fixed in two patients. In one instance, the right pupil was larger than the left in the presence of a left oculomotor palsy.

Recovery was usually complete in two to eight weeks, although one patient still had residual effects after three months. The condition of the patient with the twelfth nerve involvement remained unchanged symptomatically. The exact pathology of the neuropathy is unknown. It is thought to be on a vascular basis, but this hypothesis is difficult to substantiate because of a paucity of pathologic material. Ellenberg and Krainer have pointed out that ocular paresis is rather uncommon in the arteriosclerotic patient, unless he also has diabetes.[4]

Small thrombi and hemorrhages into the nucleus or into the intramedullary part of the nerve have been suggested as a cause of the paresis. In peripheral neuropathy, narrowing of the vasa nervorum has been suspected, but this is not true in all cases of neuropathy. Involvement of the autonomic nervous system and the various neuropathies of the skin and joints makes one believe that diabetic neuropathy may result from factors other than reduced blood supply alone.

Dreyfus, Hakim and Adams reported a case of oculomotor paresis in a diabetic with autopsy findings. A fusiform swelling of the retro-orbital part of the nerve was observed. There was evidence of regeneration in the area of destruction of the nerve. No

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occlusion of an artery was demonstrated but nevertheless, the authors thought the lesion was a result of occlusive arterial disease. They felt the paralysis was due to a disorder of function rather than to complete destruction of the nerve. This may explain the rather rapid recovery from the paralysis. The pupilloconstrictor function was probably spared because of the location of the fibers in the periphery of the nerve. These fibers were not involved in the autopsied case reported by Dreyfus et al.[5]

There is no specific treatment for diabetic ophthalmoplegia. In most cases, pain is controlled by salicylates. It is recommended that the diabetes be under strict control. The patient may be able to get around more easily if he wears a patch over the involved eye. Parenteral vitamin B-12 and thiamine chloride may be given.

Summary

Fifteen diabetic patients, mostly in the 50- to 78-year age group, have been observed with ophthalmoplegia. Spontaneous recovery occurred in about two to six weeks. Because of the rapid recovery of the diabetic ophthalmoplegia, in our opinion, angiographic procedures may be postponed for six weeks. In most instances, the pupillary reflex was spared and pain was not a prominent feature in these cases. Diabetes should be considered in cases of diplopia, but other causes must also be ruled out by a complete neurological study.

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American College of Surgeons Inducts Michigan Members

Those receiving admission from the State of Michigan at the 1962 convocation of the American College of Surgeons, October 15-19, are as follows:

Ann Arbor.—William J. Fry, Gerald A. O'Connor, James A. Taren, George D. Zuidema.

Bad Axe.—Clark Herrington.

Dearborn.—Ernest M. Berkas, John S. Jewell, Frank W. Schwarz.

Detroit.—C. Gerald Barone, G. Jan Beekhuis, Ruth B. Campbell, Harold Glen, Charles J. Holt, Jr., E. Rae Hudspeth, Herbert S. Jacobson, Richard S. Kamil, James R. Lloyd, George L. Reno, David S. Ruskin, Richard D. Young.

Flint.—Henry H. Mendrek, Richard L. Rapport.

Grand Rapids.—James R. Glessner, Jr., John R. Heaton, James P. Muldoon.

Iron Mountain.—Warren J. Roberts.

Midland.—V. A. Marks, William B. Redmon.

Pontiac—Shelby M. Baylis.

Rochester.—Merle A. Childers.

St. Joseph—H. Dean Hudnutt

Saginaw.—Quinter M. Burnett, Robert E. Nelson.

Southfield.—Milton H. Goldrath.

Taylor.—Robert L. Tygart.

Ypsilanti.—Manos A. Petrohelos, Fulton B. Taylor.

Paradoxical Hyperglycemia

A *Brief Review*

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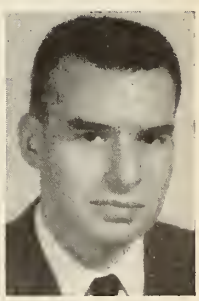
SOMOGYI has described a phenomenon worthy of emphasis in the management of diabetic patients.[1,2] He has carefully studied over a period of many years the deterioration of diabetic control induced by excess insulin dosage. This phenomenon, which has been referred to as "paradoxical hyperglycemia" or "adrenalin diabetes," should be suspected when control of diabetes worsens or fails to improve as insulin dosage is increased. Unfortunately, as pointed out by Somogyi and also by Perkoff and Tyler,[3] typical hypoglycemic reactions are uncommon in this situation even though the blood sugar may decrease to subnormal levels. At times, the only sign of hypoglycemia may be intense hunger, although careful questioning may elicit other very minor but typical hypoglycemic symptoms. However, a carefully kept record of fractional urine sugars will often show a pattern typical of this phenomenon—sugar free periods alternating with period of intense glycosuria. Thus, these diabetics often present as "brittle" diabetics. To confuse the picture further, ketonuria may occur.

The disturbances of physiology, which lead to poor control of diabetes when excess insulin is administered, have been clarified by several studies. Somogyi has shown that injection of as little as four units of insulin intravenously to normal subjects forty minutes before a glucose load will cause hyperglycemic peaks as high as those occurring in diabetics even though the hypoglycemia induced prior to glucose administration was extremely mild and asymptomatic.[4] It is likely that the hyperglycemia represents a response to epinephrine which produces both an increase in breakdown of glycogen and decreased peripheral utilization of glucose. Glucagon may also be involved. Hypoglycemia can also lead to increased production of glucocorticoids,[5] and perhaps growth hormone and other antagonists as well. The interesting effect of hypoglycemia on production of ketone bodies has been extensively studied.[6,7,8] These studies have shown that net splanchnic ketone production in human subjects studied at surgery increases greatly two to three hours after hypoglycemia.[7] Studies in rats have shown that ketone levels fall two hours after injection of insulin, but then increase markedly in response to hypoglycemia.[8] The increase in ketone bodies appeared to be related inversely to the level of liver glycogen, the liver glycogen decreasing in response to hypoglycemia. The increased production of ketones may also be related to mobilization of non-esterified fatty acids from adipose tissue under the influence of epinephrine.[9,10] Perhaps the liver produces excess ketones when too little carbohydrate is available to allow complete oxidation of mobilized fatty acids or to provide sufficient glycerol phosphate for formation of triglycerides from these mobilized fatty acids.

As pointed out by Perkoff and Tyler, proof that poor control of diabetes is due to excess insulin dosage depends on the response to reduction of insulin dose. In managing suspected instances of paradoxical hyperglycemia, we have followed a program similar to that recommended by Perkoff and Tyler. Insulin independent diabetics, those who are overweight at the onset of diabetes, have relatively mild symptoms of diabetes at the time of diagnosis, and are resistant to ketosis, can tolerate an initial drastic reduction of insulin two-thirds to one-half the original dose without danger of precipitating acidosis. This procedure may result in striking improvement of previously poorly controlled diabetes. However, hyperglycemia may persist for several days after reduction of insulin

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dosage due perhaps to persistance of insulin antagonists. Further changes in insulin dose will, of course, depend on the response to this initial reduction. If control does not worsen and instability persists, further decreases in insulin dose will be required. It is extremely important to remember that insulin dependent diabetics—those who are usually thin or of normal weight at onset of diabetes, have striking and often very acute symptoms of diabetes, and who readily go into ketosis on withdrawal or reduction of insulin dose—cannot tolerate a drastic reduction of insulin dosage. In this situation reduction of insulin dose must be very gradual, usually two, and at most four, units at a time. Again, three to four days may be required to determine the effects of a change in insulin dose.

It is certainly true that many diabetics require large doses for adequate control. However, constant awareness that too much, rather than too little, insulin may be responsible for poor control will lead to gratifying results in properly selected and carefully followed diabetics.

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Your Vital Vote

Make no mistake about it, doctor. Your vote is vital.

The entire House of Representatives, 37 members of the Senate, 36 governors and hundreds of other state and local officials will be elected on November 6. These people will run the country, a pretty important business in which every voter's influence should be felt.

Each ballot means something. Even the vote that doesn't elect a candidate is important because it affects the winner's action in office. Close elections are not uncommon. Blaine missed becoming president by less than one vote per precinct in one state. Cleveland's margin of 1,149 votes in New York State sent him to the White House. The closeness of the 1960 presidential vote is well known.

Your vote counts, doctor—even if you don't vote. The qualified voter who does not go to the polls is, in effect, casting two votes against his own candidate—the vote his favorite doesn't get and the vote the opposition doesn't have to make up. Not long ago five Cuban refugee physicians told a Cleveland *Plain Dealer* reporter: "It was all our own fault. We never cared about politics and whom to vote for until it was too late. We were too interested in our own affairs to bother about understanding politics."

The American Medical Association for several years has urged physicians to take part in public affairs, to support actively the party and candidates of their choice. But even if you are unable to participate in political activities, you should find the time to inform yourself of the issues and go to the polls. You should make sure to apply in advance for an absentee ballot if you are going to be away from home on election day. You should encourage your family and friends to register and vote, and you should arrange your office hours so that your associates will have an opportunity to vote.

Your vote is your voice in government, doctor. Be sure you make it heard.—*AMA News*, Oct. 15, 1962.

Cancer of the Pancreas and Diabetes

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DOES primary carcinoma of the pancreas occur more commonly in the patient with genetic diabetes? Indeed, is cancer more commonly associated with diabetes than without diabetes? The literature contains conflicting evidence and opinion. Many workers cite a higher incidence of cancer in patients with diabetes, yet Joslin et al,[1] in 1959, were unable to document this allegation in a group of patients with diabetes. Glicksman,[2] studying consecutive admissions to the Memorial Hospital, found a higher incidence of positive glucose tolerance tests in patients with malignant tumors (35 per cent) than in patients with benign lesions (10 per cent). An increased frequency of carcinoma of the pancreas has been reported in patients with diabetes, but Green and co-workers[3] failed to note an increase in pre-existing diabetes in patients with this cancer. Cancer of the pancreas also accounts for a larger percentage of total cases of cancer in the patient with diabetes than in his non-diabetic counterpart.[4]

One hundred and twenty-two cases of primary carcinoma of the pancreas and 59 cases of primary carcinoma of the stomach were initially surveyed. Average age at diagnosis and sex frequency were determined as well as frequency of associated diabetes. Those patients with diabetes were subdivided into one group with pre-existing diabetes and a second group with the diagnosis of diabetes made after the diagnosis of the cancer. Pre-existing means the presence of diabetes at least one year before onset of symptoms or tissue diagnosis of cancer. A diagnosis of diabetes was made in all patients with one or more blood specimens for glucose above 140 mg. per 100 ml.* two hours after a test meal, with or without glycosuria. Patients with a positive glucose tolerance test, performed under standard conditions of dietary preparations etc., were included in the group with diabetes. The time of the diagnosis of the cancer was determined by tissue diagnosis or onset of definitive symptoms. Table I summarizes comparative data of diabetes associated with carcinoma of the pancreas and carcinoma of the stomach.

TABLE I. INCIDENCE OF DIABETES IN PATIENTS WITH PRIMARY CARCINOMA OF THE PANCREAS AND PRIMARY CARCINOMA OF THE STOMACH

	Cancer of Pancreas	*Cancer of Stomach*
Cases studied	122	59
Age at onset (avg.)	Male: 62y	Male: 61y
	Female: 59y	Female: 64y
Sex incidence	Male: 85	Male: 41
	Female: 37	Female: 18
Diabetes		
(a) pre-existing	14	0
(b) onset after dx	28	4
(c) glycosuria only	3	1

No broad conclusions will be drawn from these figures, yet the contrast between carcinoma of the pancreas and carcinoma of the stomach and the occurrence of associated diabetes is interesting. Sex and age incidence are comparable. The occurrence of diabetes after the diagnosis of carcinoma of the pancreas suggests a destructive effect on the pancreas by the tumor or related inflammation. The difference in frequency of pre-existing diabetes is unexplained and was not expected at initiation of this survey. The absence of any pre-existing diabetes in the group with carcinoma of the stomach emphasizes the small

*Serum glucose, antoanalyzer technique.

sampling; indeed a significantly larger sampling may erase all differences in frequency of pre-existing diabetes. In a population, age 60 or over, diabetes can be expected in 3.5 per cent with another 2.5 per cent having unknown diabetes.

From this preliminary survey, a need to review the frequency of diabetes associated with various malignancies is apparent. This differential study may shed some light on the question: Does genetic diabetes predispose the individual to primary carcinoma of the pancreas?

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Blood Bank Gleanings

Another Blood Transfusion Death Award.—The damage award in a Federal Tort Claims Act case arising from the death of a Navy officer's wife who was transfused with the wrong type of blood amounted to $150,100. This case was reported by the AMA Law Department and continues as follows: "For loss of the wife's services, $98,838 was granted. In arriving at this amount, the court considered the cost of a 'substitute mother'—a combination of housekeeper-governess-counsellor—for six young children, and of a servant who would do menial tasks around the house. This cost was estimated at $8,500 a year. For an 18-year period until all of the children reached college age, this amounted to $100,000. The annuity value discounted at 4 per cent was $98,838. A claim that this award should not be discounted because of the prospect of continuing future inflation was rejected. For the husband's loss of companionship and consortium, the award was $25,000 and for funeral expenses, $1,200. For the wife's conscious pain and suffering for 20 days before her death, the award was $25,000."

Hemophilia Foundation Interested in Regional Depots for Plasma.—The Medical Advisory Council of the National Hemophilia Foundation is studying the feasibility of establishing connections with blood handling facilities which will agree to furnish fresh or fresh frozen plasma to hemophiliacs. A conference between the Joint Blood Council and the Foundation has started the cooperation between the two organizations. The Executive Committee of the JBC has encouraged the Foundation to proceed with a workable arrangement.

1962 Directory Now Distributed. — The third "Directory of Blood Transfusion Facilities and Services," just distributed, identifies 4,578 blood collecting, processing, and using facilities. Its 250 pages include a Foreword, Council Organization, and Code Sheet in addition to five Parts which describe the institutions. The book includes the only known national listings of tissue storage banks including eye, artery, bone, skin, and mothers' milk. A copy of the release to the medical press announcing the Directory is attached.

Basic Criteria Well Received.—Nearly 30,000 copies of the JBC Basic Criteria for Blood Transfusion printed together in a reprint with its Transfusion Review Program and pertinent editorials have been distributed without charge. Single requests of over 1,000 copies have been honored. Many hospitals are redistributing copies to all members of their medical staffs. The criteria and program fit well into the Council's continuing efforts toward the proper utilization of blood and prevention of its waste. A study will get under way shortly to ascertain the extent and efforts of medical colleges and hospital staffs in relation to the subject.

The Diabetic Foot: A Problem in Therapy

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IN SPITE OF improved management of diabetes, foot complications are seen with greater frequency. This greater incidence can be explained by increased longevity and longer duration of diabetes, with a concomitant greater degree of vascular pathology. In diabetics, atherosclerosis of the senile type may become evident at an earlier age than in the non-diabetic. Evidence has been presented[1] that diabetes of long duration is also accompanied by small artery disease similar to that seen in the nephropathy of diabetes (Kimmelstiel-Wilson). Intimal proliferation with the presence of PAS positive material has been demonstrated in the arterioles of the extremities and other organs. The resulting peripheral ischemia may be present with or without sclerosis of larger vessels and may be responsible for gangrene confined to a small area, such as a toe or part of a toe. Gangrene resulting from occlusion of a large vessel tends to involve a larger portion of the foot.

Since vascular disease is usually general and hence, bilateral, loss of one foot would leave the other foot with a similar vascular pathology to bear the increased strain of walking with a crutch or prosthesis.[2] Education in the use of a prosthesis is more difficult for an older diabetic patient because of neuropathy and impaired sense of balance.

The preservation of the foot is the ultimate goal of therapy and is more important in the diabetic. Amputation is to be postponed and avoided where possible. Several years ago an exhibit[3] was presented at the American Medical Association depicting five patients who had been advised to have foot amputations. In each case, the foot had been saved by conservative therapy.

Infection is favored by poorly controlled diabetes. Ischemia due to vasculopathy and neuropathy are often added factors in lowering resistance to infection. Trauma, which may be mechanical, thermal or chemical, frequently acts as a precipitating cause. Unskilled trimming of nails, corns and calluses may provide a pathway for organism through the skin. Shoe nails and hard objects in the shoe are frequently to blame. Cracks between the toes in the presence of epidermophytosis or simply maceration from excessive moisture may provide a gateway for microorganisms to invade plantar subcutaneous tissues. Through a small perforation in a callosity, infection may involve the ischemic tissue under the callus and eventually lead to a mal perforans with cellulitis.

In all cases of infection, bed rest is essential. Rigid control of the diabetes by diet and insulin will combat the lowered resistance. Where there is cellulitis with or without abscess formation, antibiotics are indicated using one to which the microorganism is sensitive in culture. While awaiting the report from the laboratory, it is wise to prescribe a broad spectrum antibiotic empirically. Where there is abscess formation, adequate surgical drainage is provided. Control of such infections is usually prompt and presents no special problem.

An infrequent but serious problem arises when the pathogen is a microorganism resistant to all antibiotics. An antibiotic should be prescribed nonetheless, and occasionally will prove to be effective enough *in vivo* to aid in bringing the infection under control. Blood transfusions, useful in combatting infection in the era before antibiotics and especially in the presence of anemia, may provide increased resistance. Failure of these measures may lead to septicemia, and amputation of the foot may become necessary to save a life.

Infection involving tendon sheaths, plantar subcutaneous connective tissue and bones is frequently encountered. The process may start in a tendon following surgical amputation of a toe. Bacteria may gain entrance through a crack between the toes. Bruising of the foot with hematoma formation may provide a fertile soil for bacterial invasion. This process is not usually accompanied by high fever or toxemia or the presence of pyogenic microorganisms. It is often widespread involving most of the distal portion of the sole. Necrosis rather than infection is the predominating feature and results in profuse drainage of sero-sanguinous material. The foot, when first

observed, may show such a widespread area of tissue destruction (Fig. 1) that amputation may seem inevitable. The decision with regard to surgery should be withheld for several days during which the effect of bed rest, diabetic control and antibiotics can be assessed. Wide incision and drainage may be necessary. Improvement in the appearance of the foot and the general condition of the patient will often result in a decision against amputation. Antibiotics are used if sensitive microorganisms are grown on culture. Whirl pool baths and soaking of the foot will speed the removal of necrotic tissue. In spite of the widespread area of tissue destruction, amputation should be avoided as long as possible. The separation of devitalized from healthy tissue takes place gradually and fragments of tendon or bone may be cast off. After a prolonged interval, granulation tissue may appear and eventual healing result. If healthy granulation tissue is present, a skin graft may be successful and shorten the healing period (Fig. 2).



Fig. 1.



Fig. 2.

Gangrene

Diabetic gangrene usually results from a combination of factors. Most important is the absence of blood supply to the part. The flow of blood may be interrupted in the arterioles which results in a small area of gangrene. Sudden occlusion of a larger vessel in the absence of collateral circulation will result in more extensive gangrene. Uncontrolled diabetes and diabetic neuropathy are important in lowering tissue vitality. Some form of trauma often followed by infection may provide the exciting cause of gangrene. Symptoms and clinical examination of the foot are helpful in arriving at a prognosis and planning therapy. If the skin of the foot is thin, tightly applied to the underlying tendons, with absence of subcutaneous fatty tissue, without hair growth and colder than the other foot, it can be ssumed that the blood supply is poor to the whole foot. Local surgical procedures including transmetatarsal amputations are likely to be unsuccessful. Pressure ulcers in the region of the heel or malleolar area are ill omens for preserving the foot.

Experience has shown that diabetic gangrene confined to a toe can often be handled with safety and with a better result without surgery[4] (Fig. 3). The chief criticism of this method has been that it may require several months before the mummified toe drops off and complete healing is accomplished. It is true that a surgical amputation of a toe can occasionally be successful. More frequently tendons and connective tissues become necrotic and skin edges fail to grow together. If this process does not go too far, healing may eventually take place by granulation after considerable time has elapsed. The patient may have been incapacitated for a longer time than would be required for self amputation of the toe. In the case shown in Figure 4, the great toe had been amputated two weeks before the picture was taken. Amputation of the foot was advised. This operation was refused by the patient. Fortunately, the foot completely healed although a period of four months was required.

For the patient with diabetic gangrene, bed rest is prescribed on admission to the hospital. Diabetes is brought under control by diet and insulin. If infection is present, an antibiotic is prescribed. A sharp line of demarcation and gradual shrinking of the gangrenous member are favorable omens for a successful self amputation. The foot is left exposed to the air. Seepage of necrotic material can be cleaned away with hydrogen peroxide. After a long interval, from one month to six months, the toe will separate itself usually through a joint and a cleanly healed amputation stump will be left.



Fig. 3.



Fig. 4.

Although atherosclerosis in the diabetic tends to be a diffuse process and is often accompanied by arteriolar disease, angioplasty may be indicated in some cases. The sudden onset of intermittent claudication with a cold foot and with little atrophy of foot tissue is an indication for arteriography. The demonstration of a segmental occlusion may lead to a successful artery replacement or bypass and serve to avoid later foot problems. However, this procedure cannot be expected to prevent or alleviate gangrene resulting from occlusion of smaller vessels, nor improve blood supply to peripheral tissues where the chief obstruction to blood flow resides in the arterioles.

While surgical amputation is to be avoided as long as possible without endangering the life of the patient, such an operation is obligatory under certain circumstances.

1. Diabetic gangrene usually is relatively painless but, in a small percentage of cases, pain may become unbearable. When it persists and requires narcotics, amputation will be necessary.

2. When infection cannot be controlled by antibiotics due to resistant mircoorganisms, amputation will be required to prevent septicemia.

3. Excessive destruction of tissue which precludes the possibility of healing or successful skin grafting (Fig. 5) will require amputation.



Fig. 5.

Below-the-knee amputation is much to be preferred, if surgically feasible. The preservation of the natural knee joint enables the amputee to swing the artificial limb. Control of the limb will be much better than with the artificial knee joint required for an above-the-knee amputation. A simpler and less expensive prosthesis is required.

In the period 1955 to 1960, 32 below-the-knee amputations were performed. There was no operative

mortality. Nineteen of these patients are now living. Thirteen are walking. Six are confined to wheel chairs. Of eight patients now dead, four were walking satisfactorily before death. The five remaining patients were lost to follow-up. The deaths occurred four months to five years postoperatively. Five patients subsequently lost the other limb, not due to complications incident to walking.

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Birth Defects Clinical Study Center Established

A new Birth Defects Clinical Study Center has been established at The University of Michigan Medical Center through a grant from the National Foundation —March of Dimes.

Announcement of the grant of $30,459 was made jointly by Dr. William N. Hubbard, Jr., Dean of the University's Medical School, and Basil O'Connor, president of the National Foundation—March of Dimes. Dr. David G. Dickinson, Associate Professor of Pediatrics, will be director of the Center.

The Center will combine medical research and teaching with the treatment of children born with malformations involving the spinal cord and central nervous system.

The Center's activities will include the Children's Rehabilitation Service which provides the consulting skills of a whole team of specialists. Both in-patient and out-patient services will be available.

Three major research problems will be tackled by the new Clinical Study Center staff at the outset including (1) hydrocephalus (water on the brain) with the Michigan researchers conducting a long-range follow-up study of results from a new surgical technique of "shunting", seeking particularly to collect data on the intellectual achievement of these patients; (2) spina bifida (open spine). Involvement of the spinal nerve centers often results in obstruction of the urinary tract and infections often plague such patients and create serious problems for the physician; (3) bowel incontinence, the Michigan team believing, from preliminary experiments, that a program of management can be developed to solve this problem and proposing to study the method further and publish a guide that could be used by practicing physicians and also by patients at home.

"We have a large group of children with spinal defects who present many urgent and unanswered treatment problems," Dr. Dickinson said. "More than half our pediatric beds are occupied with children with birth defects. Hundreds of outpatient clinic visits are made yearly by children with congenital defects problems.

"The March of Dimes grant will help us coordinate our services for these children, provide more comprehensive care for the crippled and handicapped, and begin some new clinical studies aimed at improving treatment methods. Professional training will be an integral part of the center program."

According to O'Connor, birth defects are a growing problem, with 250,000 children, or one in 16 born each year in this country, victims of significant abnormalities. The National Foundation has made the first real organized effort to deal with the problems of birth defects.

The Center is the fourth in a network of birth defects clinical study centers to be established by the National Foundation—March of Dimes. The others are in Columbus, Ohio; Nashville, Tennessee and Oklahoma City. In addition, 19 special treatment centers for birth defects patients have been opened across the nation, each supported by one or more county chapters of the National Foundation.

Glucagon for Hypoglycemia

Fred W. Whitehouse, M.D.

Detroit, Michigan

A HYPERGLYCEMIC principle was found in early preparations of insulin. The name, glucagon, was given to it by Murlin in 1924. Staub successfully crystallized glucagon in 1953, thus opening the door for its clinical use.

Glucagon is a polypeptide with a molecular weight of 3500. Following a parenteral injection, increased hepatic glycogenolysis through activation of the phosphorylase system results in hyperglycemia. Any parenteral route will successfully raise the blood sugar with an initial response in five minutes and a peak response at 30 to 45 minutes after injection. A detectable duration of effect averages 90 to 120 minutes.

Clinical use of glucagon resides in its ability to overcome severe hypoglycemia. This is most valuable in patients with diabetes on insulin or in the occasional psychiatric case undergoing insulin shock therapy. Glucagon should be used when oral carbohydrate cannot be given. It is not to be used in patients with mild or functional hypoglycemia. The effect of glucagon given subcutaneously parallels the effect of intravenous glucose, although the latter should be given if glucagon fails to work.

We have found glucagon to be most useful in our diabetic patients; (1) in the home where a trained lay person can give glucagon to the diabetic in insulin coma; (2) in the physician's bag where glucagon makes the house call for treatment of hypoglycemia easier; and (3) in the hospital where nurses could use glucagon prior to arrival of the physician. The intramuscular or subcutaneous route allows a person untrained in venipunctures to give glucagon. One to two milligrams should be used; most cases will respond to one milligram. After recovery ,which may take five to 20 minutes, 15 to 20 grams of oral carbohydrate is given. We have seen no toxic effects; but failure of response should make one question the presence of hypoglycemia.

Diabetes Day Program, Flint, November 7

All doctors of medicine are invited by the Genesee County Medical Society to participate in the first of a series of Diabetes Day programs, at Flint, November 7. The event will be held at the C. S. Mott Foundation Children's Health Center Auditorium, 806 West Sixth Avenue.

The morning session will begin at 9:30 a.m. Luncheon will be served at noon with the afternoon session to begin at 2 p.m.

The morning program will offer Thomas W. Burns, M.D., University of Missouri, "Natural Course and Standards of Control of Diabetes;" Stefan S. Fajans, M.D., University of Michigan, "Importance and Methods of Early Diagnosis in Diabetes," and Harvey C. Knowles, Jr., M.D., University of Cincinnati, "Treatment of Diabetes During Pregnancy."

The afternoon session will offer Alexander Marble, M.D., Boston, "Recent Research Developments in Diabetes;" Laurance Kinsell, M.D., Oakland, Calif., "Polyunsaturated Fats in Vascular Diseases and Diabetes"; T. S. Danowski, M.D., University of Pittsburgh, "Mechanism and Treatment of Diabetic Acidosis." All the speakers will participate in a panel at the close of the day's program.

The Serum Protein Electrophoretic Pattern In Diabetes Mellitus

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Huber Falanga, M.D.
Detroit, Michigan

SINCE the method was originally described by Tiselius in 1937,[24] many studies have been made of the electrophoretic pattern of serum proteins in various physiological and pathological states. One of the conditions in which there have been several studies made is that of diabetes mellitus. Some of the complications of this disease are believed to be associated with disturbances in protein-bound carbohydrates and lipoprotein metabolism.[1,2,17] Also insulin antibodies and insulin antagonists are known to be associated with different electrophoretic proteins.[3,7,9,14,21] Therefore, we considered that an investigation of the serum protein electrophoretic pattern in varying conditions in the diabetic would be of interest. Because other factors, such as age, infection, and liver disease, are known to affect the serum protein electrophoretic pattern, we attempted to correlate our results with associated conditions as well as with changes in the diabetic state. In this way, we hoped to find what changes in the electrophoretic pattern, if any, were related to the diabetes alone.

Method

The method of determining the electrophoretic pattern which we used was that employing bromphenol blue dye in aqueous solution, Method A, using a Spinco Model R System.[22,23] The sixty-four diabetic patients ranged in age from eleven to eighty-one years. There were thirty-four female and thirty male patients, and all of them were hospitalized for treatment of their diabetes, a diabetic complication, or an associated condition. The twenty-two normal controls were hospital employees and blood donors. The range in age of this group was from eighteen to fifty-nine years.

Results

Although correlations were made with race, sex, duration and type of diabetes, use of insulin, complications, associated conditions, blood sugar level, serum CO_2, BUN, serum lipids and cholesterol, significant results were obtained only in the following studies:

1. *Comparison of Diabetics with Normal Controls.*—The serum protein electrophoretic values obtained in those diabetics with no apparent complication such as infection, liver disease, cardiovascular disease or neuropathy, retinopathy or nephropathy correlated closely with the normal controls except for minimal depression of the serum albumin and minimal elevation of the alpha 2, beta and gamma globulin.

2. *Effect of Age.*—Two age groups were analyzed, those under sixty-five and those sixty-five or older. Because liver disease is known to produce a marked distortion of the serum protein electrophoretic pattern,[5,6] the patients with liver disease were excluded from this as well as all other studies. The serum albumin values were depressed in both age groups, but the depression was most marked in the older patients. In the older patients, the gamma globulin was elevated, while in the younger group the alpha 2 globulins were above normal.

3. *Effect of Liver Disease.*—The diabetic group, as a whole, had a lower serum albumin and a higher gamma globulin than the norms ($p=0.01$) as well as

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a higher alpha 2 ($p=0.05$). The diabetics with liver disease also had a lower serum albumin and higher alpha 2 and gamma globulin than the norms; but their serum albumin was lower than those diabetics without liver disease, and their beta and gamma globulin higher.

In the group of patients without neuropathy, retinopathy or nephropathy, there was an elevation above normal of the gamma globulin which was most marked in those patients sixty-five years of age or older.

TABLE I.

	Number Cases	Mean Albumin	Mean Alpha 1	Mean Alpha 2	Mean Beta	Mean Gamma
Normals	22	46.4	5.7	12.1	18.5	17.6
Whole diabetic group	64	38.5 p=0.01	6.4	13.9 p=0.05	19.6	21.6 p=0.01
With liver disease	8	32.6 p=0.01	6.6	13.9	20.6 p=0.01	26.4 p=0.01
Without liver disease —under 65	37	40.4 p=0.01	6.1	14.0 p=0.01	19.8	19.8
Without liver disease —over 65	19	37.3 p=0.01	6.8	13.8	18.9	23.3 p=0.01
With NRN	23	40.1 p=0.01	6.4	14.5 p=0.05	19.8	19.2
Without NRN	33	38.8 p=0.01	6.3	13.5	19.3	22.2 p=0.01
With NRN—under 65	16	40.4 p=0.01	5.9	14.6 p=0.05	19.8	19.3
With NRN—over 65	7	39.6	7.4 p=0.01	14.3	19.7	19.0
Without NRN—under 65	21	40.4 p=0.01	6.2	13.5	19.8	20.1 p=0.01
Without NRN—over 65	12	35.9 p=0.01	6.4	13.5	18.4	25.8 p=0.01
Diabetics without liver disease, CVD or NRN	7	43.3	5.7	12.9	19.4	18.7

NRN—Neuropathy, Retinopathy, or Nephropathy

4. *Correlation with Neuropathy and/or Retinopathy and/or Nephropathy.*—Because of previous reports[1,2,4,15,18,20] associating serum protein electrophoretic pattern changes with these conditions, the entire group of our cases having one or more of these conditions was compared with the norms. Furthermore, a separate comparison was made, dividing the group into those under sixty-five years of age and those sixty-five or older.

The entire group of patients with NRN had a lower than normal serum albumin and a higher than normal alpha 2. In contrast to this, although there was a similar depression of the serum albumin in the diabetics without this complication, there was no elevation of the alpha 2 globulin and there was an increase in the level of the gamma globulin. When a correlation was made with the patients with NRN in reference to age, it was found that the group under age sixty five had the highest alpha 2 levels. Although there was some elevation of the alpha 2 globulin in the older group, the figure obtained was not statistically significant in the seven cases studied. However, in this older group of patients with NRN, alpha 1 globulin was higher than normal and higher than that in the younger diabetics with the same complication.

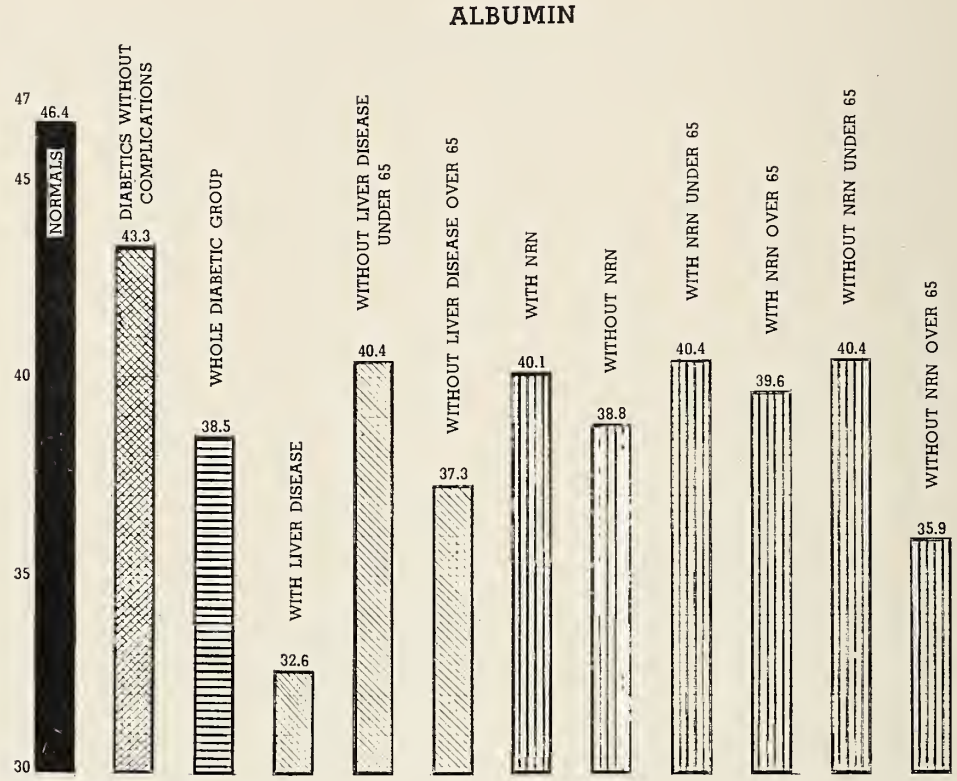
Discussion

The lower serum albumin which we found in the whole diabetic group and especially in the older patients or those with liver disease is consistent with the results reported by others. Lower serum albumin values have been reported in diabetics as a group[6,8] and also in arteriosclerotic patients who were not diabetic.[1] One study indicated that hypoalbuminemia seemed to be associated with hospitalized, as opposed to outpatient, diabetics.[25] Low serum albumins have also been reported in alloxan diabetic rats[16] and in various states of malnutrition in humans.[26] Studies by other investigators[1,2,20] have shown that the serum albumin is lower in diabetic nephropathy and especially so in diabetics with nephropathy, retinopathy and neuropathy. However, in our series of cases, the serum albumin was below normal in the diabetics without NRN as well as those with the complication, and actually was lowest in the older patients without NRN. In general, the serum albumin was below normal in the whole diabetic group as well as in the older age group. It was lowest of all in those diabetics with liver disease, while the depression was minimal in those diabetics with no complications or associated conditions.

Since prolonged insulin administration has been shown to induce the formation of gamma globulins,[5] it is possible that this may have affected the elevated

gamma globulin values which we found in our older group of diabetics.

In this study, the gamma globulin in the patients without NRN was higher than normal and higher



than in those patients with NRN. In fact, the older group of diabetics who had NRN failed to show the elevation of gamma globulin shown by the older group without this complication. This depression of gamma globulin in cases of retinopathy has been reported by other investigators.[2,25] Since gamma globulin is produced by the reticuloendothelial system in contrast to serum albumin and the other globulins which are produced by the liver,[10,13] hypogammaglobulinemia in the presence of neuropathy, retinopathy or nephropathy might be indicative of some impairment of the reticuloendothelial system.

Beta globulin has been reported to be higher in diabetes even under good control,[1] in diabetes with retinopathy[20] and in alloxan diabetic rats.[16] In our series, the significant elevations of beta globulin occurred only in the group of diabetics with liver disease.

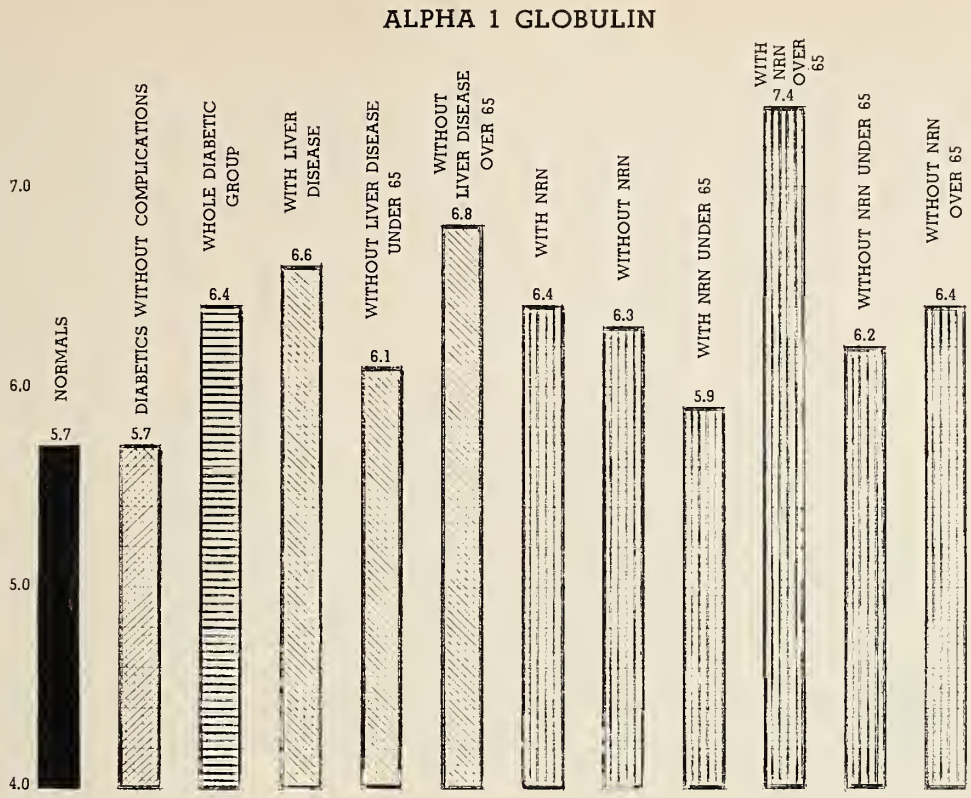
Alpha 1 has rarely been reported as elevated. Indeed, the constancy of alpha 1 globulin has been commented on by one group of investigators.[26] In this study, alpha 1 was found to be higher in the older age group of patients with NRN.

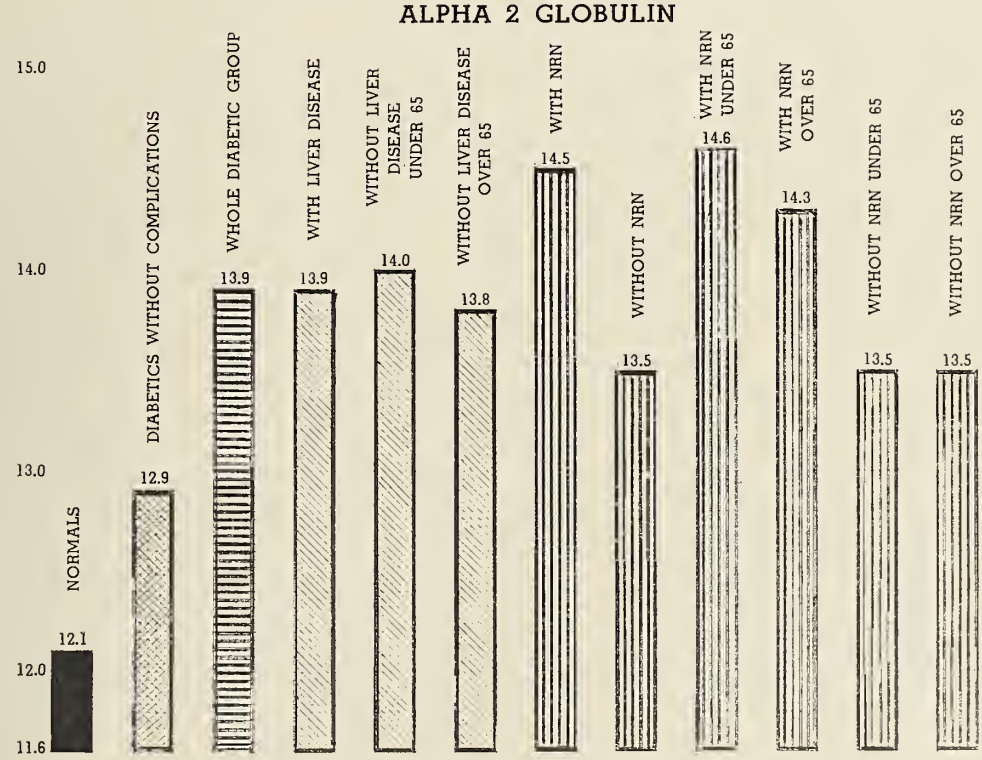
In the younger group of patients with NRN, there was an elevation of the level of alpha 2 globulin. This finding is consistent with the results reported by other investigators.[1,2] Although we did not find as marked an elevation of alpha 2 globulin in the older patients with NRN, there were only seven cases sixty-five years of age or older studied.

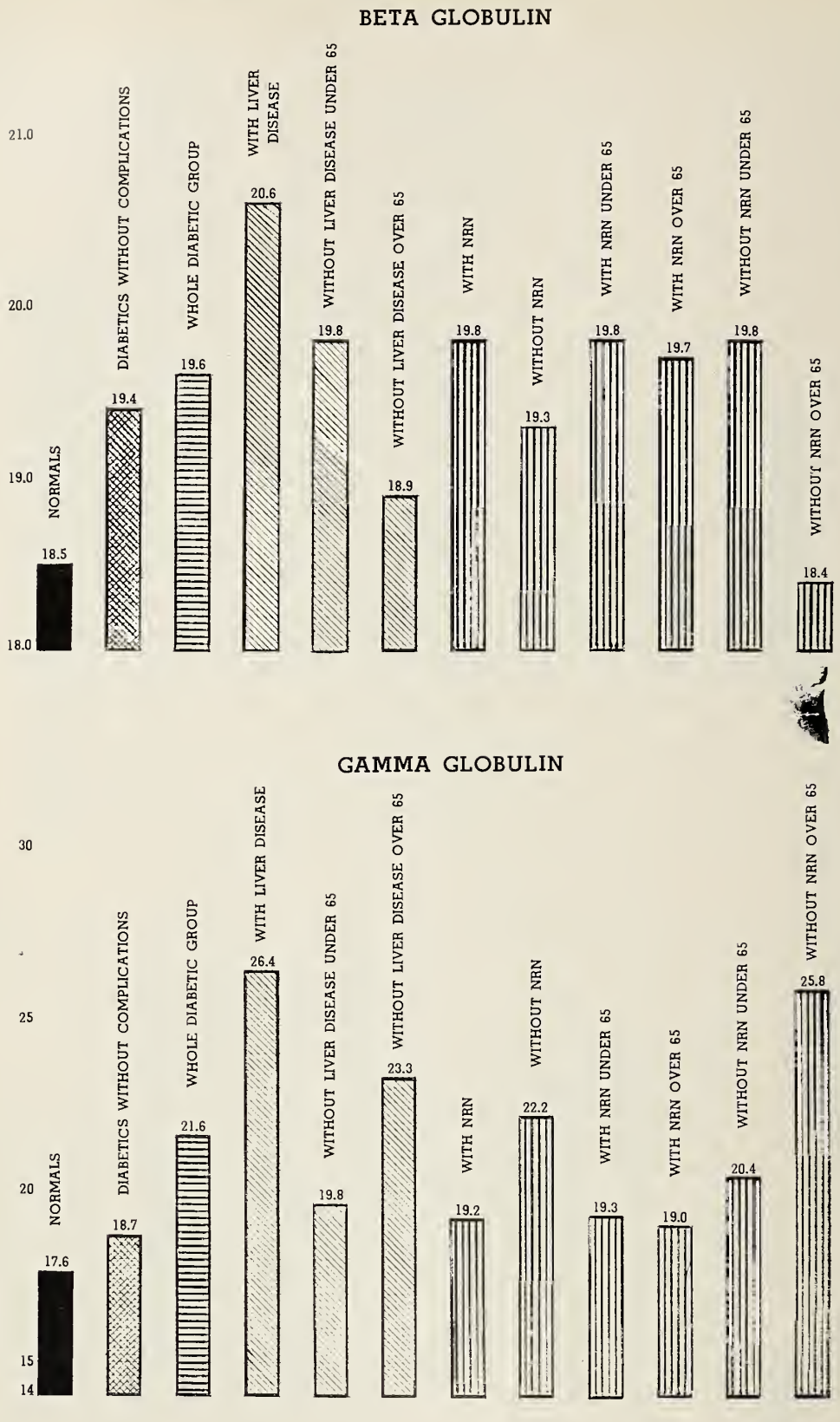
In summary, except for alpha 1 and alpha 2 globulin, the changes observed in the electrophoretic patterns could be explained by age or liver disease. In those diabetics who had no apparent complications or associated conditions, the serum protein electrophoretic pattern did not deviate markedly from normal. When the diabetics developed the diabetic complications of neuropathy, retinopathy, or nephropathy, then there was an elevation of the alpha 2 globulin, most marked in the younger group, or an elevation of the alpha 1 in the older group.

Summary

1. Sixty-four diabetic patients were studied with reference to changes in their electrophoretic pat-


ALPHA 1 GLOBULIN
7.0
6.0
5.0
4.0
NORMALS
5.7
DIABETICS WITHOUT COMPLICATIONS
5.7
WHOLE DIABETIC GROUP
6.4
WITH LIVER DISEASE
6.6
WITHOUT LIVER DISEASE UNDER 65
6.1
WITHOUT LIVER DISEASE OVER 65
6.8
WITH NRN
6.4
WITHOUT NRN
6.3
WITH NRN UNDER 65
5.9
WITH NRN OVER 65
7.4
WITHOUT NRN UNDER 65
6.2
WITHOUT NRN OVER 65
6.4


ALPHA 2 GLOBULIN
15.0
14.0
13.0
12.0
11.6
NORMALS
12.1
DIABETICS WITHOUT COMPLICATIONS
12.9
WHOLE DIABETIC GROUP
13.9
WITH LIVER DISEASE
13.9
WITHOUT LIVER DISEASE UNDER 65
14.0
WITHOUT LIVER DISEASE OVER 65
13.8
WITH NRN
14.5
WITHOUT NRN
13.5
WITH NRN UNDER 65
14.6
WITH NRN OVER 65
14.3
WITHOUT NRN UNDER 65
13.5
WITHOUT NRN OVER 65
13.5


BETA GLOBULIN
21.0
20.0
19.0
18.0
NORMALS
18.5
DIABETICS WITHOUT COMPLICATIONS
19.4
WHOLE DIABETIC GROUP
19.6
WITH LIVER DISEASE
20.6
WITHOUT LIVER DISEASE UNDER 65
19.8
WITHOUT LIVER DISEASE OVER 65
18.9
WITH NRN
19.8
WITHOUT NRN
19.3
WITH NRN UNDER 65
19.8
WITH NRN OVER 65
19.7
WITHOUT NRN UNDER 65
19.8
WITHOUT NRN OVER 65
18.4
GAMMA GLOBULIN
30
25
20
15
14
NORMALS
17.6
DIABETICS WITHOUT COMPLICATIONS
18.7
WHOLE DIABETIC GROUP
21.6
WITH LIVER DISEASE
26.4
WITHOUT LIVER DISEASE UNDER 65
19.8
WITHOUT LIVER DISEASE OVER 65
23.3
WITH NRN
19.2
WITHOUT NRN
22.2
WITH NRN UNDER 65
19.3
WITH NRN OVER 65
19.0
WITHOUT NRN UNDER 65
20.4
WITHOUT NRN OVER 65
25.8

terns as compared with the patterns of twenty-two normals.

2. An attempt was made to correlate the changes in the electrophoretic patterns of the diabetics with variances in the disease state of diabetes as well as with diabetic complications and other associated conditions.

3. Statistically valid results were obtained only in the correlations with liver disease, the diabetic complications of neuropathy, retinopathy and nephropathy, as well as correlations with age of the patient and the diabetic group as a whole against the norms.

4. Effect of age. The serum albumin was lower than normal in all the diabetics but was lowest in those sixty-five years of age or older. The gamma globulin was higher than normal in the older diabetics while the alpha 2 was higher than normal in the younger diabetics.

5. Effect of liver disease. The serum albumin in the diabetics with liver disease was lower than normal and lower than that of the remainder of the group of diabetics. In addition, the beta and gamma globulin was higher than normal and higher than in those patients without liver disease.

6. Effect of neuropathy, retinopathy and nephropathy. The alpha 2 globulin was higher than normal in the diabetics under age sixty-five, when they had one or more of these complications, while the alpha 1 globulin was elevated in the older group of patients with NRN. In the diabetics without NRN, there was an elevation above normal of the gamma globulin which was most marked in those patients sixty-five years of age or older. On the other hand, the older group of patients with NRN failed to show much elevation of their gamma globulin.

7. Except for alpha 1 and alpha 2 globulin, the changes observed in the electrophoretic patterns could be explained by age or liver disease. In the diabetics who had no apparent complications or associated conditions, the serum protein electrophoretic pattern did not deviate markedly from normal. When the diabetics developed the diabetic complications of neuropathy, retinopathy or nephropathy, then there was an elevation of the alpha 2 globulin, most marked in the younger group or an elevation of the alpha 1 in the older group.

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Evaluation of a Combination Test For Glucose and Ketone

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A COMBINATION reagent strip method for rapid detection of glucosuria and ketonuria* has been studied in the Department of Pathology at Hurley Hospital. Particularly useful in the diabetic patient, these tests show the presence of glucose by means of reaction with glucose oxidase[1,2] and of ketone by the classical nitroprusside reaction.[3,4]

Method of Study

As an initial test of the glucose portion of the reagent strip, various sugars were added in measured quantities to urine specimens which had been previously tested and found to be sugar-free. Sugars tested were glucose, maltose, mannitol, sucrose, lactose, galactose, xylose and fructose.

Glucose was added to urine specimens to make up solutions of ¼%, ¾%, and 2% strengths, there being four specimens of each. These specimens were then tested using Clinitest and the reagent strips. It was found that the reagent strips gave 2+ or 3+ results, and the Clinitest gave 1+, 2+, or 3+ results.

The other sugars were added to urine (already tested and found to be free of sugar) to make up solutions of 2% strength. Three maltose solutions, three mannitol solutions, three sucrose solutions, four lactose solutions, three galactose solutions, three xylose solutions and three fructose solutions were tested. All solutions gave a negative reaction with the reagent strip, except galactose. The galactose was then tested with a specific enzyme for glucose (glucose oxidase) and was found to be positive. Therefore it was concluded that the galactose used was impure, containing some glucose. The Clinitest, of course, gives a positive reading with all reducing sugars and were negative with sacchrose.

In order to evaluate the glucose portion of the reagent strip, 1560 (Diastix) urine specimens submitted to the laboratory for routine testing were tested using as comparison Clinitest tablets and the glucose portion of Combistix strips. The accuracy of the Clinitest is well attested to in the literature.[5,6,7,8] The results are shown in Table I. The Diastix strip was found to be more sensitive than the Clinitest tablet and trace amounts of glucose were detected with it.

TABLE I. GLUCOSE TESTING

	Diastix	Combistix	Clinitest
Negative	1474	1480	1484
Positive			
Trace to 1+	41	33	37
2+	22	24	17
3+	23	23	22
Total positive	86	80	76

As an initial test of the ketone portion of the reagent strips, 50 urine specimens sent to the laboratory for routine testing were tested using the Diastix reagent strips as well as the routine laboratory tests. The results using the reagent strips were compared with those using Rothera's reagent, Acetest and Ketostix. Of these 50 specimens, five gave a positive test with the reagent strips (the results are graded from 1+ to 3+). These five urines also gave positive results in the other tests as shown in Table II.

To investigate the ketone portion of the reagent strips further, measured quantities of acetoacetic acid were added to urine specimens which had already been tested with Acetest and found to be free of ketone bodies. To seven specimens 10 mg. of acetoacetic acid were added to 100 ml. of urine. To six

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*Diastix, a trademark of the Ames Company, Elkhart, Indiana.

specimens 25 mg. of acetoacetic acid were added to 100 ml. of urine. And to seven specimens 100 mg. of acetoacetic acid were added to 100 ml. of urine. Two urine specimens had no acetoacetic acid and were used as controls. The specimens were then tested using Acetest, Ketostix and Diastix.

In the urines with 10 mg. of acetoacetic acid/100 ml. of urine all gave a 1+ or 2+ with Diastix and 1+ with Acetest, 25 mg. of acetoacetic acid gave 2+ or 3+ with Diastix and 2+ with Acetest. With 100 mg. acetoacetic acid/100 ml. urine all gave 3+ with Diastix and Acetest. The results of these tests were

TABLE II. KETONE TESTING

Specimens	Diastix	Rothera's Reagent	Ketostix	Acetest
1	2+	2+	2+	1+
2	3+	3+	3+	3+
3	3+	3+	3+	3+
4	2+	2+	2+	2+
5	1+	1+	1+	1+

read not knowing to which specimens the acetoacetic acid had been added. The results of these tests showed that the reagent strips are a sensitive index of the presence of acetoacetic acid in urine, and the intensity of the color produced is found to be roughly proportional to the amount of acetoacetic acid in the urine specimens tested.

In order to evaluate the ketone portion of the Diastix, 1560 urine specimens submitted to the laboratory for routine testing were tested using, as comparison, Acetest tablets and Ketostix strips.[9] The results are shown in Table III. The slightly more positive results with the Diastix and Ketostix over the Acetest appears to be due to the ease in reading the strips over the tablets, especially when small amounts of ketones are present in the urine.

Summary

Fifteen hundred and sixty random specimens of urine were examined for glucosuria and ketonuria by means of the new combination dipstick test (Diastix). The results compared favorably with the older methods of testing urine.

The new combination test proved to be simple to perform, rapid, and convenient. The results correlated well with other methods, in some cases being found to be slightly more sensitive.

TABLE III. KETONE TESTING—ACETOACETIC ACID ADDED

	Diastix	Ketostix	Acetest
Negative	1405	1409	1422
Positive			
1+	80	79	71
2+	48	46	37
3+	27	26	30
Total positive	155	151	138

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Cites Dangers in Closed-Chest Method

Possible dangers in the indiscriminate use of the closed chest method of cardiopulmonary resuscitation have prompted the issuance of a joint statement by the Industrial Medical Association, the American Heart Association and the American National Red Cross.

While acknowledging the usefulness of the closed chest method, the statement stresses the importance of its application only by carefully trained personnel.

The use of this method in untrained hands was reported responsible for a variety of injuries to patients, including damage to the heart and liver, internal bleeding, multiple rib fractures, and puncture of the lungs.

Management of the Young Diabetic Patient
Part II

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Diet

THE DIET that is used in our clinic aims to accomplish proper nutrition of the patient with minimal changes in family habits and the maintenance of the best possible diabetic control. A careful history of the child's previous diet is therefore essential and an attempt is made to modify this diet to suit the above criteria rather than to make any drastic changes. This is not only appreciated by the mother who must prepare the diet but also by the patient because he may still eat essentially the same food as the rest of his family. If there are marked changes from the usual family routines, it means that special preparations are required in the kitchen and the child is set aside from the rest of the family when he sits down to eat even though he does this at the same table. Avoiding these little irritations makes for greater satisfaction in both parents and patient and the latter is much less apt to rebel against the diet and to "cheat" when not under strict observation by a parent. We have found it wise occasionally to "prescribe" actual breaks in the usual routine at infrequent intervals. For example, on special days, such as Christmas, the child is allowed to indulge himself in a few of the usual taboo foods or to have more than the usual amount of carbohydrates. Similar exceptions may be made for birthdays and other very special occasions. On the average, approximately four such days are allowed in each year. Our children have learned to call these "hog wild days" and seem to appreciate them very much. Although a controlled experiment has not been conducted, we are conviced that the child who is allowed to make these occasional breaks will do a much better job in sticking to his diet the other 361 days in the year when compared to the child who is allowed no deviations. Since we know when these occasions are going to occur, we can take proper measures to prevent any ill effects. This is usually accomplished by increasing the total insulin dosage for that particular day by approximately 10 per cent of the usual dose. In addition, the child is required to eat all of his protein exchanges at the regular times and in the regular amounts.

The total calories for diabetic children are calculated during the first few days in the hospital on the basis of 1,100 calories plus 100 for each year of age. As an example, an eight-year-old would have a base of 1,100 calories plus 800 calories or a total of 1,900 calories for each twenty-four hours. It should be understood that this is only a rough estimate of the total calories that go into the child's diet. If a discussion with the child or the parent indicates that the above rule would be grossly out of line with the child's usual diet, there is no reason why modifications cannot be made. It has been found, from past experience, that this rule works very nicely for the majority of our diabetic children. There are two important exceptions. Many of the new diabetics that come to the hospital after symptoms have been present for a number of weeks will have lost a considerable amount of weight. Their appetites are consequently increased more than the normal child and their caloric intake will be considerably higher than would be expected. Such a child may eat several hundred calories more than one would expect and this may persist for several weeks or even months until they have regained their normal weight; then their appetites will usually decrease and will approach that of the average child for that chronologic age. The other exception concerns the adolescent child. Very frequently, and especially during their spurt of growth in height and weight, they will require a considerably higher caloric intake than before or after their adolescent development.

The average carbohydrate content of the total calories is 40 per cent. (This figure can be converted into grams by moving the decimal point in the figure for total calories one figure to the left. For example, if the child received 1,900 calories, 40 per cent of this would be 190 grams of carbohydrate.) This relatively high carbohydrate diet allows for considerably more

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liberalization of food intake than if it were curtailed to a greater degree. The average American family eats approximately this much or a little more of their diet as carbohydrate and consequently, this figure allows most of the mothers to prepare the same food for the diabetic that she is preparing for the rest of the family.

Because we are treating growing children, it is important that the protein content of the diet be adequate. The minimal amount is estimated to be approximately 15 per cent of the total calories. Unless it causes great financial strain on the family, we suggest a 20 per cent figure as the portion of the total calories that should be in protein. (In terms of grams, this is one-half of the total number of grams of carbohydrate. Using the same figures as were used in the above paragraph, this would mean one-half of 190 or approximately 95 grams.) Forty per cent of the total calories are thus made up of fats.

The distribution of the specific food substances are in a proportion matching that of the distribution of total calories. If one-seventh of the total calories is used for breakfast, then one-seventh of the total protein to be used in that day's diet should be included in the breakfast. The same proportion of carbohydrate and fat would also be incorporated. The distribution of the total calories is approximated as follows: one-seventh is given in the breakfast meal, two-sevenths is given at the noon meal and at the evening meal. In addition to these major meals, approximately one-seventh is given in a mid-afternoon feeding, as nearly as possible midway between the noon and evening meals. The final seventh is given as a bedtime snack and it should be given as late as possible. Both the mid-afternoon and nighttime snacks are as important as meals, both in their timing and their contents. They should contain the proportionate amount of protein that is found in the distribution of total calories. The purpose of these two snacks is primarily to avoid insulin reactions which are most apt to occur in the late afternoon or in the early morning hours.

We have found that many parents misunderstand the difference between calories and the particular food substances such as protein, carbohydrate and fat. When a substitution of one food for another is made, the only correct substitution will be in terms of total calories *and* the same type of food substance. Again to use an example, 100 calories of protein should be substituted by only 100 calories of protein. Thus, we might substitute cheese for meat but we would not substitute bread for meat.

Both a soft diet and liquid diet are often prescribed for the patient in case of emergency, such as tooth extractions, sore throats, or recovering from some illness. There is usually little difficulty encountered with the soft diet and the same distribution of foods as indicated can be made. In the liquid diet, however, it is more difficult to find adequate amounts of protein and fats. Furthermore, in the child who has been vomiting, where the diet is often used, such foods as milk which are high in protein will often cause some gastric distress or further nausea and vomiting. In a real emergency situation, we have found that the best liquid diet consists of small quantities of ginger ale given at frequent intervals. Usually an ounce or two given at thirty or forty minute intervals will suffice. Where there has been persistent vomiting this often will tide the child over for a period of twelve hours or more until he can again use his regular diet.

It might be indicated here that even when the child is unable to keep any food down, his body still requires some insulin and it should never be completely eliminated. It is a safe rule to say that the usual daily dose of insulin should never be reduced by more than one-half.

Insulin

The types of insulin which have been found most useful for the juvenile diabetic are Lente and NPH. A rough rule of thumb for proper insulin dosage on the diet outlined above can be estimated by multiplying the child's age in years by three. For instance, the nine year old would take approximately twenty-seven units of insulin. It has been our experience that slightly more than 75% of the children will take this dosage of insulin until the adolescent growth spurt occurs. With adolescence and the resulting growth changes and hormonal changes, the requirements of insulin often increase greatly for a number of months or even years and then will gradually subside as early adult life is entered. There seems to be very little choice between the two types of insulin and we have never seen any allergic responses to either one.

A single dose of insulin given shortly before breakfast will suffice in most children. We have been able to substitute the above types of insulin for regular insulin in the newly diagnosed patient within several days after entrance into the hospital. Both from the standpoint of relief of actual pain as well as for psychological reasons, the patient appreciates the change from multiple injections daily to a single injection. In some instances we have used mixtures of insulin. The requirements for this have been most frequent in the adolescent who requires relatively large doses exceeding 40 to 50 units daily. There may be a

relatively high blood and urine sugar in the hours from breakfast until lunch and, if further increase in the NPH or Lente insulin is used, this will often cause insulin reactions in the afternoon or during the early morning hours. Therefore, a mixture of 1 to 9 or 2 to 8 of regular to NPH will control the hyperglycemia during the early part of the day and avoid the hypoglycemia that may occur later on.

Our experience with any of the oral preparations has been most unsatisfactory. We have not found that DBI (phenformin, phenethylbiguanide) reduces the peaks of hyperglycemia or smooths out the troughs of hypoglycemia as others have stated. Furthermore, this drug will often cause gastrointestinal symptoms and loss of weight, even when the dosage does not seem to be excessive. Ketosis and acetonuria are found in a high percentage of patients who supplement insulin with DBI. It has been an interesting finding that the majority of the patients that we treated with DBI asked that we withdraw this medication. This request was made within a few weeks to a few months of starting the oral preparation. The reason most frequently given was that they did not wish to remember two different medications, that is, insulin plus a capsule in the morning and then a capsule before each of the meals during the daytime. A few also complained of some gastric distress and the fact that "food did not taste good." A theoretical objection to the use of phenformin (DBI) is that it alters the usual metabolic pathway of carbohydrate and we do not know what the long term effect of this will be upon the human body.[1,2]

Measurement of Diabetic Control

At the present time, the major concern of most investigators in the field of clinical diabetes is the occurrence of the degenerative vascular lesions or arteriosclerosis as the patient advances in age. Less common but also of serious consequence is the neuropathy that occurs in patients who have had the disease for a number of years. It has been observed that these changes are very unusual throughout childhood regardless of the duration of the disease, but when adolescence occurs there is an increasing number of patients with these complications as the years progress.[3] It would appear that the occurrence of adolescence has some striking influence upon the effects of the disease on the nervous system and the vascular system. Although many attempts have been made to show that the degree of control has some influence upon the development of these lesions, it is this writer's belief, conclusive proof is lacking that good or excellent control will either prevent or greatly delay the onset of these sequelae. It should be remembered that the patient who has the best control is almost always the patient who has the mildest disease and in which good control is most easily obtained. The greatest number of psychological maladjusted children and parents among our diabetics are found in that group where attempts have been made to obtain absolutely strict control by following rigid routines.

The child who is constantly or usually aglycosuric and has normal blood sugar levels when at rest is in potential danger of hypoglycemia when he or she does any unusual amount of exercising. Hypoglycemia is a very real and dangerous possibility in these patients and numerous reports have appeared of children with permanent brain damage as a result. In the past several years at the University Hospital, we have seen four children who developed severe and permanent sequelae as a consequence of insulin reactions. It is this great risk that constitutes one of the most valid arguments against unreasonably strict control in the juvenile diabetic.[4,5,6]

At the opposite extreme is the group which believes in a "free diet" and relatively loose control.[7] Glycosuria and hyperglycemia are tolerated as relatively unimportant manifestations of the disease. This group believes that control should be just sufficient to prevent acidosis and to maintain normal growth and development. It is our feeling that such patients do poorly in the event of even mild infections and during such episodes are prone to develop acidosis and coma. It is often apparent that these children are undernourished and are not performing either physically or mentally to the best of their abilities. It is also true that some patients and their parents need some routine to guide them and are literally "lost" without it.

We have selected to follow a middle course between these extremes in the care of our children. By allowing a fair degree of latitude regarding blood sugar levels and its reflection in the urine as glycosuria, we are able to keep our patients out of the state of hypoglycemia with changes in daily exercise. At the same time, our patients are rarely in the state of acidosis. Our criteria for satisfactory control are: (1) Normal gains in height and weight for age, (2) Absence of acidosis as determined by urine tests, (3) Normal physical examinations which are obtained at approximately three-month intervals, (4) Spot testing of urines three or four times a day which show by Tes-tape or similar methods, specimens with an average of 1+ values. One must admit that such perfection, particularly with regards to the urine testing, is seldom ob-

tained consistently. We do insist that no specimen is greater than 3+ once a day and no more than two specimens with aglycosuria would be considered satisfactory. Before the urine tests are accepted as being valid it must be established that the renal threshold in these individuals is within the normal range. In a series of more than 150 such patients who have been carefully evaluated for renal threshold, we have yet to see one that is outside of the normal limits, ranging between 170 to 190 milligrams per cent in blood when glycosuria first appears. Warning signs of poor control are outlined to the parents in addition to the urine tests. These include thirst of unusual degree, polyuria and loss of appetite.

Treatment of Emergencies in the Diabetic Patient

Hypoglycemia is one of the most dramatic emergencies and may result in serious sequelae. All patients must be carefully instructed as to the signs of impending hypoglycemia and under what circumstances it is most likely to occur. As mentioned before, all of these children should carry sugar with them and use it when necessary. Sugar water and orange juice with added sugar may be kept in the home for similar purposes. When coma or convulsions occur, a lump of sugar may be placed between the cheek and the teeth without danger of injury or aspiration. Fluids should be avoided if the child is unable to swallow. An injection of 1 mg. glucagon is a valuable and readily available procedure for the physician in his office or in the home. Intravenous injection of glucose is specific and is indicated in all states of hypoglycemia with unconsciousness, but the procedures given above take less time and are usually more readily available and should be carried out until glucose can be administered. A safe rule to follow, and one that may prevent tragic errors, is to treat all diabetic patients in coma as though they had hypoglycemia until more definitive diagnostic methods can be carried out.

All infections, either localized or systemic, should be considered emergencies. If these are properly cared for, it will greatly lessen the incidences of acidosis and eliminate the most common cause of diabetic coma in children. During such episodes, the insulin requirement invariably increases. This should be recognized and treated accordingly. Many intelligent parents can properly nurse their diabetic children at home when they have the less severe common childhood diseases. However, under all such circumstances, a physician should be consulted and the parents should be alert for unusual reactions.

Diabetic coma and acidosis constitute another true emergency in which time is an important factor. The initial aims of treatment are to correct the depleted carbohydrate depots and thus prevent the continued production of acid metabolites by the excessive burning of fat, replace lost fluids, and correct the abnormal acid-base balance. The following outline is that used by the Pediatric Department at the University Medical Center.

1. A catheter is inserted into the bladder and is left in place. Urine specimens are collected every two hours at which time the bladder is completely emptied.

2. Intravenous administration of normal saline or sodium bicarbonate is begun and given as rapidly as the patient can tolerate it. The selection of the proper fluid at this time depends upon the clinical status of the patient. If hyperpnea or other evidence of moderate or severe acidosis is present, bicarbonate is the solution of choice and may be given combined with saline. In most instances 5.0 Gm. (60 mEq) of sodium bicarbonate is an adequate initial dose but this may be repeated in a few hours if necessary.

3. If the patient has received no insulin within six to 12 hours, he is given an immediate dose of one unit of regular insulin per pound of body weight. This dose is reduced accordingly if regular insulin was given shortly before admission to the hospital. This is given in the intravenous fluids to insure complete absorption and it should be given over a 30- to 60-minute period.

4. After one to two hours the intravenous fluid is changed to one-half normal saline and one-half 10 per cent glucose and the rate of administration is reduced so that between 400 and 800 cc. are absorbed each hour.

5. Depending upon the clinical condition of the patient and the degree of glycosuria and acetonuria, for the next 12 to 24 hours regular insulin is given at three- to four-hour intervals. The amount used should not exceed one-half unit per pound per single dose.

6. If the condition of shock exists after the first hour or so of therapy, whole blood or plasma should be substituted for the saline-glucose mixture.

This plan of treatment is continued until the patient is able to take fluids orally and acetonuria is no longer present. If aglycosuria occurs before acetone disappears from the urine, more glucose should be given.

Although it is desirable to obtain blood sugar levels and electrolyte levels, including bicarbonate, at the beginning and during therapy they are not absolutely essential. There is good clinical and laboratory evidence that prompt correction of acidosis leads to more

efficient utilization of insulin and more rapid recovery of the patient from coma. Reducing the hyperpnea will further decrease fluid loss and energy loss. It is for these reasons that early administration of bicarbonate solutions is almost routine. During the early phases of treatment, there is no indication for the use of potassium salts as these patients usually are in a state of hyperkalemia due to the shift of potassium from intracellular to extracellular fluid spaces. If there are any clinical indications of hypokalemia after six to twelve hours, small amounts of this ion (1 to 3 grams of potassium chloride) may be added to the saline-glucose mixture. Since most of these patients can begin to take oral fluids in 12 to 18 hours, and since orange juice contains a high level of potassium, the parenteral administration of potassium is seldom required.

Gastric lavage is seldom indicated because these patients have usually vomited before treatment is begun and the danger of aspiration as a result of the technique is a real one. If vomiting persists, lavage may be carried out.

After the patient is out of coma, the insulin is given at about six-hour intervals to control marked glycosuria. Diet during the next 24 hours is limited only by the patient's tolerance and appetite. By the third 24-hour period, he is kept on regular insulin, a prescribed diet similar to that outlined previously, and attempts at control of glycosuria and hyperglycemia begin. Repeated blood sugar levels are matched with urine specimens to evaluate renal threshold. A better indication of required insulin dosage is obtained by determining quantitative urine sugar content over 24-hour periods. However, since one unit of insulin may control anywhere from one to over 7 grams of glucose, this method is still only a rough one. After reasonable control is obtained, the patient is changed over to NPH or Lente insulin, using one unit of this for one unit of the regular. It should be remembered that the requirements for insulin remain elevated for a variable length of time after an episode of acidosis and coma.

Psychologic Aspects of Diabetes

The psychologic implications of diabetes mellitus are most important but only recently have received much attention. Anxiety on the part of the parents of these children certainly is understandable but it must be allayed as much as possible by reassurance and careful education. Not infrequently, erratic or poor control of a patient in our clinic has been traced directly to psychogenic factors. These are most often oversolicitude or feelings of guilt on the part of the parents which eventally manifest themselves in the child's attitude toward his disease. Worry and insecurity in the child may similarly produce inconsistencies in the control of the condition. We have found of value the combined efforts of a child psychiatrist and pediatrician to remedy some of the more serious problems in this field. However, a good program of initial education and continued careful follow-up by a sympathetic physician will go a long way in preventing the development of these problems.

It is most important to get the family and the child with the disease to face the situation realistically. The fact that diabetes mellitus does exist should not be obscured. The fact that it does exist means certain restrictions will be imposed for the rest of the person's life, at least in our present state of knowledge. It can be pointed out that there are few people in the world who do not live with some handicaps, such as the individual who wears glasses. Although he may not like this, if he wishes to see well, that person must certainly wear the glasses. By the same token, the individual with diabetes mellitus can not get rid of the disease by simply ignoring it. As in all aspects of living, there are certain rules that one must follow to survive and to be compatible with his environment. The individual who crosses the street must look both ways in order to avoid being hit by an oncoming automobile. The diabetic person must follow similar rules in order to avoid serious problems. Although there are certain restrictions placed on the patient who has diabetes mellitus, it may be emphasized that these interfere very little with the usual routines of living in the modern world. Furthermore, it should be stressed that diabetics can and do lead very successful, happy and productive lives.

Particularly during adolescence, the diabetic patient may use his disease as a means to accomplish his desires over the objections of his parents. The boy or girl may knowingly change insulin dosage or deviate from his diet to cause anxiety and sympathy from his parents in an attempt to accomplish these desires. It is one of the duties of the physician to give aid to both parents and the youngsters at this time. He can tell the patient, in terms he will understand, the consequences of poor control. He must help the parents understand the natural feelings of rebellion that exist in all children at this stage of development and point out that they are not peculiar to the diabetic. Giving the child greater responsibility for his own control and discussing situations directly with him or her, instead of through the parent, will result in a sense of re-

sponsibility and satisfaction on the part of the patient. Such an approach will solve many of the problems that exist at this time.

The family must be cautioned against taking advice of some well meaning relatives or friends. The physician must do everything he can to gain confidence of the family and they must look to him for advice regarding any changes in routines that have been established. These people, unfortunately, will often go to tragic extremes in an effort to "cure" their child and will grasp at any straw to accomplish it. A better understanding of the physiology of the disease on their part, as well as complete sympathy with their many problems on the part of the physician, may prevent their falling into the hands of unscrupulous quacks.

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Medicine's Investment in Blue Shield

In the first six months of 1962, 75 Blue Shield Plans paid for nearly a half billion dollars worth of professional services that were rendered for those of the 50 million Blue Shield members who needed such medical services in that period. At its present rate of growth, Blue Shield will probably pay physicians more than one billion dollars in 1962.

By any measuring stick, Blue Shield is a major factor—probably a dominant factor—in the medical economy today. And it is the one operative factor which is controlled by the profession. The Blue Shield program is the only program that reflects medicine's ideas as to how a prepayment plan should be operated, what services it should cover, on what terms, and with what provisions for reimbursement of the physician's services.

While the several hundred commercial accident and health insurance companies, in aggregate, cover more people and pay out more money in the course of a year than do the 75 Blue Shield Plans, it is Blue Shield that has set the pace and established benefit patterns and fee schedules at levels that will substantially protect the patient and reasonably compensate his doctor.

What has medicine invested in Blue Shield? For the past 25 years, thousands of dedicated doctors have given lavishly of their time and energy as trustees, directors and committee members in their local Plans. Thousands more supported their efforts by providing services under arrangements which, in the early days, represented a substantial contribution to the Blue Shield program as well as to the welfare of their patients and the freedom of our medical care system.

And this investment is paying off, in benefits vastly more important than even the billion dollars worth of medical services it is underwriting this year.

Medicine's investment in Blue Shield is paying off as a solid demonstration of the ability of physicians—working together with labor, industry and community leaders—to solve the social and economic problems of modern medicine without recourse to government. It's paying off as a strong and versatile instrument by which medicine can continue to guide the economy of medicine in the days ahead.

Hypertension of Renal Vascular Origin

Clarence V. Hodges, M.D.

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HYPERTENSION is one of the commonest problems encountered in medicine. It is estimated that one out of four persons in the age group between 30 and 70 years will exhibit hypertension. Since Harry Goldblatt's dramatic experiments in which hypertension was induced in animals by partial occlusion of one or both renal arteries, clinicans have been wondering how great the incidence of this type of hypertension might be in the over-all group of hypertensives. The suspicion has been mounting that it is higher than the incidence of 0.5 per cent suggested by Homer Smith.

The major breakthrough in our thinking on this phase of hypertension has come with the realization that, frequently, the cause lies in an abnormally narrowed segment of renal artery. This area of constriction may be very short and may occupy the main renal artery or one of its branches. Other circulatory lesions of the renal vessels, such as aneurysms, arterio-venous fistula, total or segmental infarctions from renal artery thrombosis or embolization, appear rather insignificant in their relation to major body functions but they may have far reaching clinical effects which are crippling or even lethal. It is impressive and fundamentally significant to the thesis of this presentation to realize that an area of constriction, perhaps one to two millimeters in length, in a segment of renal artery may cause a booming hypertension with incapacitating headaches, visual disturbances and strokes of any magnitude.

The patient with hypertension lives not only under the threat of stroke or other vascular crisis but he is faced with the more subtle threat of the damaging effect of his hypertension on other organs, in this instance, particularly the other kidney. Evidence is accumulating that this "normal" kidney, unprotected by vascular stenosis such as guards the opposite kidney from the full impact of hammer blows from the hypertensive pulse beat, undergoes injury, demonstrable both functionally and histologically, which may result in marked deterioration of the over-all renal functional capacity.

Faced with the large numbers of people who have hypertension and concerned with the fact that this serious problem is remediable in most cases of hypertension due to renal artery disease, the problem becomes one of detection. It would be desirable to screen all hypertensive patients for renal artery disease but the process would involve personnel and equipment not now available. It is important to try to pick out those patients who are most apt to suffer from renal artery disease and, in particular, those who are most apt to benefit from removal of the lesion.

We might consider some categories which were formerly considered exclusive as far as workup for renal hypertension is concerned. A few years ago, we were accustomed to state that patients under 50 were candidates for a workup but we now know that atherosclerosis is the commonest cause of remediable renal hypertension and that this occurs more commonly in patients over 50. It is important to note that in the series of 80 patients treated by revascularization of the kidney for renal vascular hypertension, reported by Russell Scott and associates, 46 per cent were over 50 years of age. It was formerly stated that patients with long-standing hypertension were not as good candidates as those with recent hypertension and this is probably true. However, it is no longer a rarity to find patients with hypertension of up to 20 years in duration who are benefited by removing the renal cause. Russell Scott has reported a series of 30 patients who were followed more than one year after surgery, grouping them according to the duration of hypertension. Thirty per cent of these patients had hypertension of over eight years' duration and 15 per cent over eleven years' duration; 75 per cent of these patients with long-term hypertension were cured or significantly improved.

Doctor Hodges is Professor of Urology, University of Oregon Medical School.

Features Suggesting Renal Artery Disease

Sudden Onset in Previously Normotensive Patient.—The sudden onset of hypertension suggests a dramatic change in the hemodynamics of the kidney.

Type of Hypertension.—Characteristically, renal hypertension shows high fixed systolic and diastolic elevations without reduction during sleep and without much variability.

Hypertension After Episode of Pain in Renal Regions.—Sudden pain in kidney areas followed by hypertension suggests embolization and infarction of the kidney (this must be differentiated from acute pyelonephritis; symptoms and signs may be similar).

Hypertension After Trauma to Back or Side.—Not infrequently, there appears to be a causal relationship between a blow or fall with injury to the lumbar area and the subsequent appearance of hypertension due to atherosclerotic stenosis of the ipsilateral renal artery.

Response to Drugs.—About 10 per cent of patients with renal vascular hypertension will become normotensive with appropriate medication. This is contrary to our previous concept that renal hypertension was not responsive to medical management and thus this is no longer a point of differentiation. Reduction of hypertension in such cases by medical management is accomplished at the expense of the involved kidney, since functional deficits are emphasized and exaggerated by lowering the blood pressure.

Other than those features mentioned above, there is little in the personal history or family history that is helpful in arriving at a diagnosis of hypertension of renal origin. Similarly, on physical examination there is no finding, other than the presence of a bruit, heard over the periumbilical areas or costovertebral regions, that can rule renal hypertension in or out. There are no commonly available laboratory tests which will help.

Excretory Urography

The most readily available screening test is the excretory urogram. We look for three things, *changes in the size of the kidney, changes in the appearance time of contrast material* and *changes in concentration of contrast material.* One should routinely get a three minute postinjection film since the routine five minute film may not detect a difference in appearance time between the two sides. Variations between the two kidneys in these three factors are very important when present; their absence will not necessarily rule out a lesion of the renal arteries. Intravenous pyelograms will not usually show segmental artery defects, they may be too insensitive to show a difference even when there is a marked unilateral vascular lesion and they are incapable, as a rule, of differentiating between bilateral lesions. In summary, excretory urograms are helpful when positive in pointing up the need for further study; in our experience, they have been a positive diagnostic aid in slightly less than 50 per cent of our patients with renal hypertension.

Special Studies

Differential Studies of Kidney Function.—Ureteral catheterization and collection of urine from each kidney for a variety of test substances and under a variety of test conditions is carried out as a means of detecting differences between the two kidneys. As described initially by Howard and his group, the test consisted of the comparison of volume and sodium excretion between the two kidneys. Others have elaborated on this to include studies of other metabolytes, extraneously introduced materials under various conditions of dehydration, water load and various testing infusions. The sole purpose of these tests is to, again, demonstrate a disparity between the two kidneys. The split function test is more sensitive than excretory urography but it suffers from the same deficiencies of inability to detect small lesions and to accurately show bilateral lesions.

The Radioactive Iodide Renogram.—The functional capacity of the kidney may be evaluated by its ability to pick up and concentrate organic iodides from the blood stream. This is measured by injecting a small amount of radioactive iodide and measuring the gamma ray scintillation over the kidney. If scintillation counters are placed over the two kidneys and measurements taken simultaneously, a comparison of the functional capacity of the two kidneys is afforded. The greatest advantage of this method lies in its applicability to screening of large numbers of hypertensive patients. Its testing value is reported variously at between 50 to 85 per cent.

Renal Angiography.—Generally the foregoing tests are principally useful in pointing up the need for angiographic visualization of the renal arterial system. However, it might well be stated that any patients

whose hypertension has not been adequately explained should undergo renal angiography. After performing translumbar aortography for years, we became convinced about three years ago that retrograde femoral artery catheterization was preferable because of better visualization of the renal arteries. We depend on angiograms to tell us whether a vascular lesion is present, whether it is unilateral, or bilateral, whether there are more than one lesion on each side and whether there are small lesions in accessory vessels.

Arterial Pressure Determinations at Surgery.—At our present state of knowledge, we believe that the hypertension results from a pressure gradient between aortic pressure and that distal to the renal artery narrowing. Pressures are obtained by introducing a number 22 gauge needle into each vessel and recording via a Statham pressure transducer on a Sanborn recorder. A means is provided of checking the accuracy of the angiographic appearance and for detecting areas of constriction not visualized on the aortogram. We have on one occasion found pressure recordings to be normal throughout the renal arterial circulation when an angiogram had indicated a likelihood of stenosis. In such a case we felt there was no rational basis for proceeding with an attempt at revascularization of the kidney. Pressure determinations after removal or bypass of the arterial obstruction should indicate an approximation of intra-aortic and intra-renal artery pressures.

We do not have time in this presentation to dwell on techniques of surgical treatment. Suffice it to say that our present attitude is one of conservation and our efforts are bent toward revascularization of the affected kidney wherever possible. This is even more important in the light of our current belief that the "uninvolved" kidney is actually damaged as a result of the impact of hypertension whereas the "involved" kidney has been protected from hypertension by the interposition of the stenotic area. While there is evidence that after hypertension has been ameliorated there is improvement on the normal side, histologically and functionally, it is more desirable and certainly more appealing to attempt to restore the patient to his two normal kidney state. Nephrectomy is used only when it appears that the functional ability of the kidney has been hopelessly compromised. The technique to be employed, either by vessel substitution, resection and re-anastomosis, thromboendarterectomy or bypass grafting will depend upon the individual situation. The results are surprisingly good, ranging from 75 to 84 per cent, depending on the length of time the patient had been followed after surgery, in the largest series yet published.

Discussion

In Poutasse's series, one out of four hypertensives who was evaluated was found to have renal vascular disease suitable for consideration for surgical cure. I would estimate that perhaps one in ten hypertensive patients in an unselected series would be found to have this type of hypertension and therefore amenable to surgical cure. The fact that we do not see this number of patients with hypertension due to renal disease at the present time probably reflects our inability to adequately screen all patients with hypertension. The foregoing has been offered as a rather elastic collection of facts and clinical impressions which guide us in our decision to have a patient run the diagnostic gauntlet for renal hypertension. As time goes on I think we shall find ourselves extending these indications and I believe that ultimately any patient whose hypertension is not adequately explained on another basis will be considered a suitable candidate for workup for renal artery disease.

Wayne State University Symposium on Blood

The Eleventh Annual Symposium on Blood will be held at Wayne State University, Detroit, on January 18 and 19, 1963. The presentation of papers is scheduled to begin at 9 a.m., Friday. Saturday the scientific session will be from 9 a.m. until 12 noon. The program provides ample time for the audience to discuss contributions of the invited speakers.

This year, the Symposium will be held at the David Whitney House which is the headquarters of the Wayne County Medical Society. The building is located next to the College of Medicine and is near downtown Detroit.

Everyone interested is cordially invited to attend.

Computer Diagnosis in Radiology

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THIS WORLD that we live in today has become a highly complex environment. The accomplishments of science simply dwarf the imagination and are coming at an ever-increasing tempo, which makes more than a superficial knowledge about our total environment an impossibility. The whole world is speeded up about us; in the last 100 years, the speed that man can travel has been increased from 60 mph by train to more than 18,000 mph by rocketry. In our travel to and from work, we speed at 60 to 70 mph by highly complex expressway systems. Speed and efficiency have become a mania in many different areas. We have one-hour laundry and dry cleaning establishments, six-minute x-ray processing systems, and ten-second processing of polaroid snapshots, for example, but nowhere has the development of speed and efficiency had a more effective expression than in the use of computers in the handling of data. For example, the Department of Defense uses tremendously complex computer systems for calculating the speed and the trajectory of modern missiles, both from the point of view of predicting the course of those that we send, and through radar, plotting the course of those that might be directed at us. Here, speed and accuracy obviously is of the greatest importance to the continued existence of our civilization and way of life.

In industry, we see our largest industries, including oil companies, insurance companies, and department stores handling literally millions of accounts efficiently and effectively with the bill, prepared, mailed, and received through the use of electronic accounting systems. Even in politics, the computer has had its effect. In the last election, early trends were known, and the winning candidate predicted within a few hours of the closure of the polls. In short, our political, economic, and sociological life is centered around these highly developed techniques for the rapid and accurate handling of data.

What of the use of computers in medicine? It is generally acknowledged that the information available to practicing physicians today is increasing at an astronomical rate. The practice of medicine has become so extremely complex that we now have more than thirty recognized types of medical specialists for handling the various problems of patient care. Yet, we have barely begun to scratch the surface in employing rapid data processing systems in our medical practice.

Let us examine this new tool that we have a little more closely. In the final analysis, a computer is nothing more than a machine which will carry out arithmetic functions with great speed and accuracy. It will do no more than a good mathematician can do with pencil and paper. Mathematical functions can be speeded up somewhat through the use of an abacus, slide rule, or even an office calculator. The tremendously complex computer simply carries out the same functions, but much more rapidly. There are, in general, two types of computers: the digital and analog computer. The analog computer is especially designed to perform functions such as to analyze and to compare complex curves with standard curves, and will not be discussed further in this talk. We will examine the digital computer a little more carefully. Fundamentally, it is an instrument which will handle ones and zeros in many combinations with almost instantaneous speed. Numbers from zero through nine are handled by the computer through the use of a coding system, which is built into the computer structure, so that it is not necessary to code each number which is handled by the computer, since this is done internally. In addition, the computer has a built-in memory for certain data in the form of magnetic tape or drums which will enable the computer to remember certain formulas or patterns and to employ them recurrently in a procedure of analysis.

How does a computer know what to do? This involves a procedure called programming. Technicians specially acquainted with the computer, prepare an elaborate set of instructions either on magnetic or punched tape which direct the computer how to proceed with a given type of analysis. For example, if it was desired to analyze a large amount of data to determine the statistical probability that different sets of data were indeed from different populations, the statistician would prepare the formulae to be employed, and the computer programmer would simply prepare a tape

which would direct the computer how to carry out this particular operation. Once the task in hand is completed, the tape can be stored and re-employed wherever this particular problem again needs to be

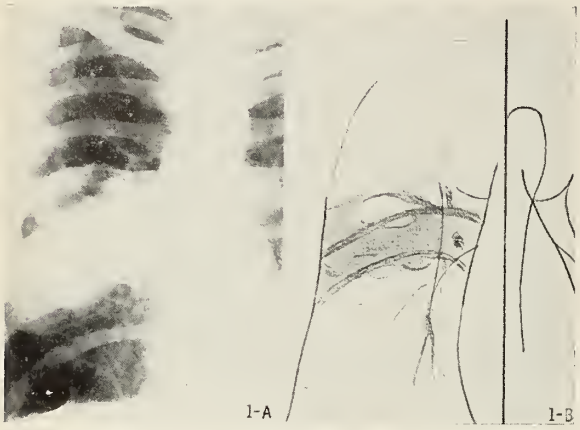


Fig. 1.

solved. With any computer, then, one develops a library of programs for solving different types of problems, so that eventually, a given computer becomes quite diversified and unique in its ability to solve different problem situations. In effect, each computer develops its own personality. Data are fed into computer in numerical form, either through IBM cards that have been pre-punched, or through prepared magnetic tape. The data come out of the computer either in the form of a magnetic tape or typewritten numerical data.

The large universities, the government, and industry are constantly seeking larger and more sophisticated computers. The question might be asked, "What can these large computers do that smaller ones cannot do?" Comparatively speaking, the answer is that all computers have the basic competence to handle numerical data in almost any type of situation that can be programmed, but the large computer can handle this data and solve problems much more rapidly. This relates, in part, to the facility of the memory which is built into a computing system, and the large computers costing in the neighborhood of a million dollars have tremendously facile memory systems.

The next question that might be asked is, "How can a computer be used in radiology?" Actually, very little has been done to employ computer techniques in diagnostic or therapeutic radiology, although a number of projects are under way. The chairman of the National Institutes of Health Committee to study research projects utilizing computers is a radiologist, Dr. Lee Lusted, formerly Associate Professor of Radiology at University of Rochester School of Medicine and Dentistry. The potentiality of the use of computer in radiology is almost beyond comprehension. Its use might well range from the analysis of large numbers of cases to determine experience in a given disease entity, to the determination of the location, extent, and timing of therapeutic procedure, or even the modality of the therapeutic procedure to be employed. But, in order for a computer to be helpful in these situations, it is quite necessary that a large amount of accurate data be collected in the cases to be considered as the basis for determining a therapeutic procedure.

Let me briefly relate my own particular research interest in the use of computer in radiology. During the past ten years, my associates and I have devoted a considerable amount of time to the analysis of roentgenograms of bone tumors and later lung tumors, with the objective of converting such visual images into numerical sequences which accurately describe the particular case under study in a uniform system through which large numbers of such cases can be systematically compared and studied.

This research program was not established with the ultimate objective of using a computer for diagnosis, but was rather intended to establish the meaning of certain phenomena which were observed with great frequency on roentgenograms of bone tumors. In other words, we wanted to know, when we saw a finding such as the Codman's triangle, what its particular significance was in terms of diagnosis and prognosis. At that time, we were dealing with several thousand cases of bone tumors from the Bone Sarcoma Registry at the Armed Forces Institute of Pathology. It became apparent, after analyzing more than a thousand cases by hand, that introduction of IBM techniques was essential for faster and more accurate analysis. Hence, the development of a system for recording this data on the eighty columns of an IBM card.

Fascinatingly enough, the system of description has proved to be remarkedly accurate, in terms of our ability to reconstruct the original roentgen image from sequences of numerical data. One needs merely to know the code and to be experienced with the principles of roentgen interpretation to be able to reconstruct such roentgen images (Fig. 1).

Following the successful establishment of a system for describing bone tumors, a similar success was met in developing a system of analyzing lung tumors.

In the analysis of such data by machine techniques, it became apparent that many of the roentgen findings

had real significance in terms of prognosing the ultimate effect of the tumor. Thus, it has been possible to develop a new medium for predicting the behavior of bone and lung neoplasms, and in a sense, to indicate the proper treatment of certain cases. Further, it has been possible to establish the statistical validity of such data, and determine the relative frequency of the occurrence of a given finding in a certain type of tumor.

Possessing such information, it is a logical enough extension of this research to turn the table and use collections of such data for diagnosing specific cases. We are now involved in the research of developing this particular program. Once established, it can be adapted to use by any diagnostic center with a computer.

My own university is a fairly typical big eight conference institution in the Middle West, and has been farsighted enough to develop a number of interdisciplinary facilities for the use of the entire university campus. For example, we are now in the late planning stage for a ten megawatt nuclear reactor, and have established an interdisciplinary computer research center headed by a young mathematician who is dedicated to the integration of the computer to the many programs of the University.

Our Computer Research Center is staffed by a number of statisticians, programmers and mathematicians, and provides an extremely low-cost data processing center for any department of the University. Our present computer, a Burroughs 205, is now being programmed up to about fifteen hours per day to meet the needs of the University, and we are now approaching the stage where it will be necessary to make definite plans for increasing the capacity of the Computer Center.

In the ultimate development of the University, it is planned to retain a central organization with a large capacity computer. Placed in strategic locations on the campus, where computing activities are developing, will be a number of smaller satellite computers which are capable of handling most problems which need solution. When the solution of a problem with the smaller satellite computer no longer is practical in terms of the amount of time involved, these programs will be forwarded, by mail or electronically, to the central University computer for more rapid analysis. At the present time, computing needs are greatest in the Colleges of Agriculture, Engineering, Business and Public Administration, and in Biological Science Departments, Physics, Mathematics, and Medicine in the School of Medicine.

What may we ultimately anticipate the needs of medicine to be with respect to a computer center? These needs are recognized to fall into five areas: medical records, library, research, education, and patient care. Let us examine each of these areas in some detail.

Medical Records

The volume of information that is obtained on a patient in a modern hospital center may be tremendous. At the present time, we are preparing up to five eighty column IBM punch cards on each patient that is diagnosed or treated in our institution. These cards are routinely prepared for each admission, and are sent to the statistical division of the University for punching. Over a period of years, the volume of data that can be collected on a given disease entity is vast, but it is a simple step to handle data prepared on IBM cards by a computer. Ultimately, we hope that it will be possible through the medium of a satellite computer in our hospital, for students to be able as a part of our educational program, to obtain through the computer our complete data on almost any disease entity that has been seen in our hospital.

Medical Literature

The National Library of Medicine is now developing a program which utilizes a computer in the search and retrieval of data in the medical literature. With the establishment and perfection of such a program, it will be possible through the use of similar programs in our own library, to vastly expedite the survey of the literature on a given subject.

Research

Basic science and clinical research today often involves extremely complicated problems using multiple variables. The analysis of such problems often requires extremely sophisticated mathematical formulae and a volume of work quite impractical to carry out without help of a computer. Our own Department of Physiology, for example, is a major user of computer time in a sophisticated mathematical analysis of pressure differentials and gradients that are observed in peripheral vessels. In time, we expect that the use of computers in our medical research will be almost unlimited.

Patient Care

The ability of a physician to diagnose a particular condition and to employ the proper and satisfactory treatment is dependent upon his ability to elicit accurate information, and to relate this information with his background knowledge of the entire field of medi-

cine. The ability of a physician to make a specific diagnosis is dependent upon his thinking of the specific diagnosis. The superior diagnostician is characterized by knowledge of a vast array of facts and an ability to sieve from such facts the important ones pertaining to the present condition of the patient.

—BAYES' RULE FOR THE PROBABILITY OF CAUSES—

$$P_{y_1 | (x_1, \bar{x}_8, \ldots x_j)} = \frac{P_{y_1} P_{x_1 | y_1} (1 - P_{x_8 | y_1}) \ldots P_{x_j | y_1}}{\sum_{\text{all } k} P_{y_k} P_{x_1 | y_k} (1 - P_{x_8 | y_k}) \ldots P_{x_j | y_k}}$$

2-A

BAYES' RULE FOR THE PROBABILITY OF CAUSES

Probability of a certain diagnosis (Y_1), with a given set of symptoms (X_1-X_j) as compared with all other possible diagnoses (Y_2-Y_k) having the same set of symptoms:

$=$ Product of the probability of incidence of Y_1 and the probabilities of the associated symptoms (X_1-X_j), including those absent (when pertinent) / Sum of the probabilities of all possible diagnoses (Y_1-Y_k) considered under the same conditions as Y1 above.

2-B

Fig. 2.

The ability of the computer to retain vast amounts of data in its memory, and to methodically compare data and to weigh the statistical validity of data combinations, makes the computer of tremendous potential value as a diagnostic and therapeutic aid in patient care. We are now beginning to see papers appear in the medical literature relating to the use of a computer in diagnostic efforts. Here is a mathematical formula which illustrates the processes to be followed in solving a problem relating to the diagnosis of human disease (Fig. 2).

This formula brings us to our next important area with respect to the development of computer usage in medicine.

Education

Perhaps one of the most serious handicaps which our profession faces in attaining broad utilization of computer application is a generally inadequate preparation in mathematics. Our pre-medical education requirements include chemistry, biology, physics, English, and foreign language, most of which are obviously necessary for the study of medicine. They almost never include college mathematics. A recent survey of the preparation of medical students in mathematics indicates that on the average, they have not had sufficient mathematics for an adequate understanding of bio-statistics, a course regularly included in medical curricula. The result of this is that physicians in general tend to shy away from statistical problems and complicated appearing mathematical formulae, much to our detriment. Most other sciences require sufficient preparation in mathematics for development of a personal understanding of the use of computer techniques and their scientific applications. As the result of our deficiency, medicine is lagging far behind in the employment of a modality which has been revolutionary in other scientific areas.

What are some of the possible solutions to this lagging development?

1. Educators and administrators who are charged with the development of the educational programs and with keeping the present educational programs abreast of new developments, need to give most serious consideration to the inclusion of a required amount of mathematics in the pre-medical curriculum. Pre-medical students should be encouraged to take majors in the field of mathematics and physics as well as biological sciences in preparation for their careers in medicine.

2. Schools of medicine should recruit physicians and Ph.D.'s who have had a substantial background of mathematical training and experience to work with the clinical departments in the development of computer programs and diagnostic aids for patient care.

3. Medical students should be offered elective experiences in the use and development of computers during their medical school careers, in order to develop future leadership in this area.

4. The large medical centers should initiate organized programs for the inclusion of computer techniques in their programs of research, education, record keeping, library science, and patient care.

5. Fundamental to the effective development of computer aids is the requirement of as complete and accurate records as possible in all instances, since the accuracy of such future programs is not likely to be greater than the data from which they are constructed.

Modern Theory and Treatment of Shock

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ALL PHYSICIANS undoubtedly are familiar with the shock state as it is seen clinically. While the full-blown condition is characterized by hypotension with a rapid, usually thready pulse and cold, pale extremities, we are prone to consider as shock the hypotensive state per se. As a rule this condition is associated with oligemia which, in its classical picture, is represented by whole blood loss from the circulating vascular compartment, as in hemorrhage, but is no less evident in the presence of plasma or fluid and electrolyte loss. Losses may be apparent or concealed. Hemorrhage may be intra-abdominal, intrathoracic, or into the tissues. While plasma loss in the case of burns may be most obvious, loss of plasma in peritonitis or pancreatitis may be very much concealed. The diagnosis of the site of losses in these various conditions is of prime importance as these are situations in which the defect is correctible by suitable intravenous therapy. It should be remembered, however, that there are many other situations in which replacement therapy may not be indicated despite the presence of the hypotensive state and treatment, in order to be administered intelligently, must rely on a specific diagnosis of that condition responsible for the hypotension. Examples of this type of abnormality are intracranial injuries, intrathoracic injuries, acute pulmonary embolus, massive atelectasis, and acute coronary occlusion. Some of these, at least, are examples of the clinical shock syndrome in the face of normo-volemia, and at least in the case of coronary occlusion, hypotension is triggered by a sudden drop in cardiac output. Similarly, in traumatic and hemorrhagic shock, a reduction of cardiac output is present although this drop is secondary to a loss in circulating volume.

In that period of time since the first World War, much has been learned with regard to both the prevention and treatment of the "shock state." Many experimental studies have been carried out and much of the information gleaned in this way has been applied clinically. It has become increasingly important to attempt to prevent the onset of shock by preoperative correction of acute, sub-acute, or chronic deficits in blood, fluids, and electrolytes. It has been demonstrated that if these deficits remain uncorrected at the time of operation the patient is very much more susceptible to small variations in circulating volume during the operative procedure. The intra-operative monitoring of losses has also represented a remarkable advance. Blood and fluid losses into the suction bottle, sponges, and even the operative drapes, are frequently very much larger than is imagined by the surgeon in the absence of specific measurements. In the same way, our postoperative management has improved immensely with regards to the control of intra-abdominal distension, fluid and electrolyte replacement, and the handling of sepsis in its various forms.

The treatment of the established shock state will, as a rule, be concerned with the administration of whole blood, plasma, plasma expanders, or electrolytic solutions. In addition, antibiotics have become increasingly important in the control of sepsis and in the treatment of sepsis which has resulted in secondary hypotensive states. Extensive experimental studies have recently been concerned with the use of pharmacological agents in shock therapy and these will be discussed more fully. A few words may be in order with regard to the more conventional types of therapy already mentioned. Whole blood should be administered in sufficient quantities, and at a sufficiently rapid rate. While for some years it was felt that intra-arterial transfusion might be the method of choice in some instances, it would appear that intravenous infusion is equally efficacious if administration is sufficiently rapid. A difficulty arises in assessing the adequacy of therapy by serial blood studies as a result of dilution factors which are always present. There may be some doubt also as to whether blood volume studies are of value in rapidly changing situations such as these. The studies in Korea by Howard demonstrated that severely wounded men

From the Department of Surgery, Montreal General Hospital.

might tolerate 20, 30 or even 40 pints of blood without apparent over-transfusion. These workers felt that the tendency had been to under-estimate blood losses in the face of severe multiple wounds and suggested that the amount of blood lost into the body tissues in the area of injury is much larger than was previously suspected.

The dangers of serum hepatitis has reduced the use of plasma considerably in recent years, but this may be the treatment of choice in situations where the losses are of protein containing fluid, as seen in burns. The danger of hepatitis probably can now be averted by storage of plasma as suggested by Allen. More recently, the question of plasma specificity has arisen and plasma reactions have been demonstrated in man with some consistency when infusions have been tested in normo-volemic individuals. Recent studies in our laboratory have suggested that these reactions are seldom, if ever, seen in the presence of hypo-volemia.

The various plasma substitutes which have been developed have been used extensively clinically. While little will be said here about the plasma volume expanders available, and their use, a word of caution might be in order with regard to the use of these agents in the presence of hemorrhage. The danger of dilution of available hemoglobin to a level where the oxygen carrying capacity of the blood is seriously limited should make the clinician extremely cautious in their use following massive hemorrhage. While in most clinical situations, serious electrolytic problems do not arise, the constant awareness of the possibility of electrolyte inbalance and the correction of deficits when present, will certainly aid in obviating the onset of hypotension and may be even more important in the effective treatment of this condition.

Considerable experimental work has been done with regard to the possible use of various pharmacological agents in shock therapy. Some of these agents have been used extensively clinically, while others may be considered as experimental only. The rational treatment of hemorrhagic hypotension may be postulated only after the physiological responses to hemorrhage have been thoroughly evaluated. It has been suggested that the shock syndrome might be defined as the sympathetic response to an acute reduction of cardiac output, either primary or secondary, where the response becomes an independent noxious stimulus. The immediate response to hemorrhage or intravascular fluid loss is vaso constriction. In this way the organism may maintain blood pressure in the face of diminished circulating volume. While most investigators feel that vasoconstriction in the initial states of hypo-volemia serves a useful function, it was suggested as long as thirty years ago that progressive vasoconstriction may result in tissue anoxia at the capillary level. Erlanger and Gasser, in 1919, demonstrated circulatory failure in animals similar to the shock state as we know it, by the intermittent administration of adrenalin. Since that time, Freeman, Wiggers, Remington, and others, have shown that sympathectomy or pre-treatment with anti-adrenergic drugs will increase resistance to shock in laboratory animals. Criticism of these studies has been concerned with the tendency of the pre-treated animal to lose less blood in the course of the shocking period. Some years ago, we were able to show prolonged survival in animals following treatment with small intravenous doses of chlorpromazine during hypotension. Recently, we have used the shocking procedure of Zingg and Nickerson, which allows administration of therapeutic agents at the completion of bleeding and prior to re-infusion of shed blood. Using this preparation, animals treated with either hydrocortisone or hydralazine went on to regular survival, whereas a 75 per cent mortality followed treatment with noradrenaline. Richard Lillehei, in studying shock produced by E. Coli endotoxin, showed a 95 per cent mortality in control animals. While blood, dextran, and levophed were shown to be either ineffectual or to enhance the shock state, significant survival was produced by chlorpromazine, Dibenzyline and hydrocortisone. Lillehei has also demonstrated that the maintenance of an effective mesenteric circulation in the shock preparation could avert subsequent death. This demonstration plus the classical hemorrhage in the small bowel of fatally shocked animals, seemed to localize the area where inadequate circulation might be crucial. The work of Jacob Fine on the role of bacteria in hemorrhagic shock suggests the elaboration of an endotoxin in the anoxic bowel and this certainly may be correlated with these studies.

Our own studies and those of others would seem to suggest that noradrenaline is of little value in experimental shock. In these situations, however, the drug was administered during established oligemia. Lansing and Stevenson, using the drug after re-infusion of blood and in rather low dosage, showed significant improvement in survival. In the course of these experiments, they were able to demonstrate a relative increase in cardiac output with some decrease in peripheral resistance in treated animals.

The adrenal corticoids have been studied extensively with rather conflicting results. Lillehei has

established the use of hydrocortisone in experimental endotoxin shock, but survivals have been less consistently reported in hemorrhagic preparations.

What, then, may be said of the clinical application of these studies?

While noradrenaline has been used extensively clinically, its indiscriminate use should be cautioned against. It would appear that the drug may enhance peripheral ischemia particularly if utilized prior to the correction of oligemia. Indeed, when used following correction of deficits, its direct action on the heart may prove of more value than its peripheral action. Levophed should probably not be used unless the blood pressure is below 80 mm. of mercury and pressure should be maintained with its use at relatively low levels.

We would feel that hydrocortisone should be used in the treatment of septic shock in conjunction with volume replacement, appropriate antibiotics, and one of the pressor amines. Its precise action in this condition has not been defined, but presumably a shift towards homeostasis is promoted by its use. The efficacy of hydrocortisone therapy may be related to the peripheral release of histamine in septic states. Further elucidation of the more specific changes promoted by this drug may result in its wider clinical application.

From a review of previous studies and from our own observations, it would seem that adrenergic blocking agents will prove to be of some value in the treatment of clinical shock in conjunction with blood volume replacement. Their function would seem to be that of moderating the intensity of vaso constriction and thus minimizing visceral damage due to anoxia. This concept involves a shift of emphasis from the sole aim of maintaining blood pressures at normal levels towards the promotion of more adequate perfusion of tissues. Nickerson, in Winnipeg, has followed shocked patients during the administration of continuous intravenous dibenzyline with apparently beneficial results. Boba, in Albany, has shown a prolonged interest in the possibilities inherent in this type of therapy, but has hesitated to employ ganglionic blockade after hemorrhage unless the situation threatens to become unmanageable with standard procedures. He was able to demonstrate marked improvement in peripheral circulation and to achieve subsequent survival in clinical cases following ineffective resuscitation in the presence of extremely low and even absent blood pressures. The clinical situation in which one might desire to lower an already low blood pressure in order to facilitate tissue perfusion will call for considerable thought on the part of the clinician.

I have attempted to summarize, very briefly, some pharmacological advances in shock therapy. While, at the present time, one cannot be dogmatic in the indications and contraindications for the use of these various agents, continuing studies will tend to clarify their position. It should, of course, always be remembered that these drugs should be utilized as adjuncts only and must not be considered substitutes for the adequate replacements of blood and fluids.

Medical Assistants to Hear Sociologist

"Missions of the Medical Assistant" will be the subject of a luncheon address, November 11, by William VanderLugt, Ph.D., well-known lecturer and staff member of the Sociology Department of Hope College. Dr. VanderLugt will address the Michigan State Medical Assistants Society at the semi-annual Presidents' Conference being held at the Hotel Schuler in Grand Haven.

Conference is open to officers and committee chairmen of state and county societies. General format is based on a problem clinic relative to organizational activities with small informal discussion groups being conducted by State officers and committee chairmen.

Further information may be obtained by contacting Mrs. Vivian Branyan, 119 W. Savidge, Spring Lake, Michigan.

An Orthopedic Safari

Harold O. Smith, M.D.

Flint, Michigan

As VISITING consultant for the Nigerian Orthopedic Project, it was the privilege of the writer, under Medico auspices, to spend a month recently in Nigeria treating patients and training doctors. An important feature of the project is to show the local doctors what can be accomplished using their present facilities and surgical supplies.

Nigeria

Nigeria is a densely populated West African country of approximately 50,000,000. With the population of the entire continent at 200,000,000, this figure is significant. While remaining a member of the British Commonwealth, these people received their independence in 1960. The country is a federation of three states, consisting of the northern, eastern and western regions. Each region has its own elected Premier, Ministries of Commerce, Education, Health, et cetera, and Governor. At the federal level are the Governor-General, Prime Minister, Council of Ministers, the Senate and House of Representatives. So it follows the British Parliamentary system complete with an extensive civil service.

The Northern Region, comprising about half the population, has an orthopedic hospital at Kano, while the Western Region has an excellent medical school at University College, Ibadan. The Eastern Region, with a population close to 10,000,000, has 190 doctors and 93 hospitals, mostly small and poorly equipped. Since there were no orthopedic surgeons in this thickly populated area, it was decided to make the regional capital at Enugu headquarters for the project which began in March, 1962.

Hospital Facilities

The 300-bed General Hospital was willing to give us the male accident ward of 30 beds and a smaller number of beds for women and children. Bed figures are purely relative, as patients could also be floor patients. The hospital is laid out on the Army hut system, with wards branching off both sides of a central covered ramp.

Most of the meals are brought by the patient's relatives or friends. The hospital will provide only if the patient is declared a pauper or if on a special diet. Charts and x-rays are kept at the patient's bedside.

The operating room contained two operating tables, lights, and air conditioners. There was also one trained anesthetist, a modest assortment of orthopedic instruments and plaster bandages, but no sheet wadding. Under these circumstances, the problem was to obtain enough operating time. At the time of my arrival in June, we had use of one table on Tuesdays from 8:00 A.M. to 2:00 P.M., and on Wednesdays from 9:00 A.M. to 2:00 P.M. While we shared the room with one of the general surgeons, at times our table was claimed for an emergency such as a ruptured uterus. We tried to take care of the contaminated cases on Wednesdays and the less contaminated ones on Tuesdays. It was not uncommon to have power failure, losing our light and air conditioning.

One Nigerian house surgeon was assigned to me for training purposes. It was not possible to obtain more, owing to the shortage of doctors. The house surgeon proved a very loyal colleague from whom, among other things, I learned considerable tropical medicine. All doctors are full-time government employees, whose working hours are from 8:00 A.M. to 2:00 P.M. On operating days, we did put in some overtime. It was therefore important to have x-ray examinations done in the morning. One may surmise that emergencies tended to be treated in a most casual way, and x-ray examinations were often three days late. Outpatient clinics were held twice weekly. The project had been running long enough that some patients were traveling more than 200 miles to attend.

Debilitating Conditions

Debilitating conditions and malnutrition complicated many orthopedic conditions. Sickle cell anemia should be mentioned as producing bone infarcts. A recent survey of health conditions is Ghana cited malaria, measles and tuberculosis as the major causes of ill-health.

It has been estimated that 50 per cent of all children die before the age of five years. Once a child is weaned about the age of two, there is no cow's milk or plentiful source of animal protein because the tsetse fly prohibits raising cattle in the South. Staple articles of food for the growing child are the root crops and cereals—yams, plantains, cassava, and corn. This is the age at which Kwashiorkor, a fatal protein deficiency disease, strikes.

Orthopedic Cases

It has been estimated that orthopedic patients occupy 60 per cent of the surgical beds in Nigerian hospitals. If one were to eliminate bone and joint infections from the ward, there would be very few patients left. Sepsis was rife in all its forms—chronic osteomyelitis, suppurative arthritis, madura foot, compound fractures and soft tissue wounds.

Fractures of the shaft of the femur are treated on straight Thomas splints and fixed skin traction. The end of the splint is tied to the foot of the bed and the head of the bed inclined downward to supply the necessary counter traction. Healing takes from ten to twelve weeks, and it is amazing how knee flexion reaches 90 degrees in two weeks. At least one of my predecessors, who arrived with his quiver full of Kuntscher nails, found cause to stay his hand. Fracture of the neck of the femur is most uncommon. Those who have had occasion to drive nails into these bones have been surprised at their hard bone structure, at time sufficient to bend the nail. Genu valgum is a very common condition in children, many cases severe enough to require femoral osteotomies.

Medical Services

In a country where limited medical services are subject to inordinate demand, it is not surprising that corruption rears its ugly head. During my stay, the Minister of Health, after a tour of the hospitals and health services of the region, sent a confidential letter to all medical practitioners. In it, he accused the doctors of practicing medicine outside the hospital and collecting fees. This extra-mural practice is carried on quite openly in defiance of the ministry. How to discipline doctors under these circumstances would be difficult, if not impossible. Certainly, revoking their license would not be the answer. Nurses were accused of taking bribes from patients. Considerable leakage of hospital drugs into the black market for the use of quacks was mentioned. The minister then asserted his high regard for the mission hospitals and hoped that soon the government hospitals would come up to their standards.

Surgical Cases

The types of cases treated are shown in the following operation list for June. There were no deaths.

GENERAL HOSPITAL ENUGU

Fusions	
Spinal	1
Hip	1
Knee	1
Ankle	1
Wrist	1
Finger joints	1
Epiphyseodesis of hip with bone pegs	1
Osteotomies	
Distal radius	1
Distal femoral	3
Upper tibial	1
Bone Block of Ankle	1
Resections	
Osteochondroma of tibia	1
Exostosis of tibia	1
Sequestrectomies	11
Skin grafts	4
Plasty of Upper Arm for Congenital Band	1
Tenorraphy	1
Neurorraphy and Tenorraphy of Forearm	1
Wound Excision	1

OJI RIVER

Fusions	
Knee	1
Triple tarsal	1
Tendon transplants—many-tailed	3
Posterial tibial	1
Sublimis tendon	1
Web plasty of thumb	1
Transmetatarsal amputation	1
Resections	
Metatarsal heads	1
Collateral ligaments of fingers	1

Leprosy

One day a week was spent in the operating room at Oji River Leper Settlement where there were 450 inmates. With improvement in living conditions and hygiene, the incidence of leprosy is decreasing. Empty

beds were now being used for the blind. Originally a missionary project, the settlement now draws a subsidy from the regional government. The operating room team was certainly much superior to the government hospital, and this would support the minister's observation. Operations done here were mainly tendon transplants for drop feet and claw hands. For the latter, the many-tailed tendon transplant of Paul Brand (India) was preferred.

Observations

The only dislocated hips in children are from septic arthritis. Congenital dislocation of the hips is rarely if ever seen, likely because the mothers carry their babies pickaback up to the age of two with their legs in wide abduction. It is difficult to relate the severe cases of genu valgum seen to this custom. Backaches are rarely seen in spite of the following observations. Increased lumbar lordosis is commonly seen as a result of carrying babies and headloads. When doing work at ground level, these people bend from the hip with extended knees. One can only conclude that their immunity to chronic backaches and disk disease is due to their superb muscular development. These people are still pedestrians, and if they do ride they are usually standing.

Conclusions

It has been said that medicine is the only exportable medium able to reach and influence every stratum of society. Orthopedic surgeons can play a real part in helping out these emergent nations. The project attempts to show national doctors what can be accomplished with a minimum of surgical supplies and equipment. Since the incidence of orthopedic conditions is quite different in tropical Africa, it is doubtful whether they can be as well trained in these conditions abroad. It has been a privilege to treat these patients with their admirable qualities of patience, fortitude and good humor. In spite of steady gains in the first four months of the project, we are merely being honest when we say that we have only scratched the surface.

Senior Citizens

The University Center for Adult Education (Wayne State University, The University of Michigan, Eastern Michigan University) opened a new series of Friday morning lectures on October 19, for retirees and senior citizens entitled "Life is Always Beginning."

There will be no charge for the five talks to be given by leading scholars, artists and educators from 10:30 a.m. to 12:30 p.m. in the Rackham Educational Memorial Auditorium, 80 Farnsworth at Woodward, Detroit.

Co-operating with the University Center in this first-time venture are the UAW Detroit Area Senior Citizens Council, The University of Michigan-Division of Gerontology and the Detroit Public Library.

The first lecture was on "New Ways to Enjoy Living: Man's Need to Renew Himself," by Wilma T. Donahue, chairman, division of gerontology, The University of Michigan; and Milton Covensky, associate professor of history, Wayne State University. Continuing lectures will be given on November 16, December 21, 1962; January 18, February 22, 1963.

The lectures will be accompanied by films, slides, recordings, or demonstrations, closing with informal discussion periods.

Michigan Diabetes Association

Approximately 30 years ago, a small group of Detroit physicians with a special interest in diabetes began to have meetings at which various problems in the field were discussed. With the formation of the American Diabetes Association, this group formed the nucleus of the Michigan Diabetes Association, an affiliate of the national organization. It has since grown steadily in membership with an increasing number of out-state physicians assuming responsible roles. Dr. William LeFevre of Muskegon was one of the early presidents.

Today the association consists of two components, the Clinical Society and the Lay Society, each with its special interests, exercising a combined function in the important fields of diabetes education, both lay and professional, and in diabetes detection. A committee of the association is responsible for the Michigan Diabetes Detection Program which conducts a continuous blood testing program on a state-wide basis. Funds are provided to a large extent by the Michigan United Foundation or Torch Fund of which the association is a member.

In the Detection Program, we have had the cooperation of the U. S. Public Health Service, the Michigan Department of Health and the local health departments. However, follow up and treatment of cases is the responsibility of the Michigan Diabetes Association and hence, the private practice of medicine and all cases are referred to a private physician by agreement with the cooperating agencies.

In recent years a camp has been established for diabetic children known as Camp Midicha which has been helped greatly by the lay members. This year 120 children are attending this camp which has obtained national recognition.

With the inevitable rapid expansion of our diabetic population, the Michigan Diabetes Association is prepared for and expects to assume an increasingly important role in the management of this problem and in representing the private physicians of Michigan.

FRANK S. PERKIN, M.D.

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Fair Employment Practices For the Diabetic Person

With improved treatment, a diabetic person, who in 1920 would lack the endurance to work, is now capable of performing any type of mental or physical work with the exception of jobs where the occurrence of hypoglycemic episodes would be hazardous. In recent years diabetics have been able to find employment in most occupations. Surveys have been conducted in several cities regarding the attitudes of employers toward the hiring of diabetics.

In Saint Louis, 72 per cent of those answering a questionnaire employed diabetics. The United States Civil Service which, at one time

would not accept diabetics, has now listed 1,200 categories in which diabetics can be employed. Several large corporations, including chemical, oil and communications companies, have published detailed studies of their experiences with the employment of diabetics. These companies are continuing to hire diabetics without discrimination, provided the diabetic continues under medical supervision and accomplishes satisfactory control. One company will even reconsider the application of an uncontrolled diabetic when he gives evidence of satisfactory medical supervision and, subsequently, keeps his diabetes under good control. A clear distinction is made between the well-controlled diabetic and the uncontrolled diabetic who is not under regular medical supervision. Evidently, poor performance of the latter is not counted against diabetics in general by these companies.

Our young diabetics have been assured that with proper treatment and cooperation they can look forward to a long life, taking part in all forms of activity and following the vocation of their choice. A diabetic who has minimized his handicap by self-discipline and by cooperation with his medical advisor feels that he is capable of and has a right to employment. It will be a rude shock to him if he is refused employment merely because he is a diabetic. He will expect his application to be judged on an individual basis. It will be no consolation to him that the employer has had bad experiences with other diabetics who were probably uncontrolled. Diabetics comprise one to two per cent of the population and are thus a sizable and important minority group who, as individuals, differ from each other just as non-diabetics do. Most will prove to be desirable employees. Others because of poor control may have to be refused employment.

Reports by employers who have made a study of their experience with diabetic employees should be reviewed by any company before adopting a general policy of not hiring diabetics as new employees. In our opinion, the well controlled diabetic will hold his own with the non-diabetic.

W. L. Lowrie, M.D.

Blue Shield—Health Commission —Politics

September traditionally has been the month for Michigan Blue Shield to offer its non-group certificates to Michigan residents, both those over and under age 65. This year, the October offering conforms with seventy-one Blue Shield plans sponsoring a national uniform Senior Citizen program. This plan has certain improvements over the one that Michigan has been selling for three years. We are eager to take advantage of this plan and national advertising accompanying it.

Michigan Medical Service submitted to the Insurance Commissioner a proposed program which would have carried distinct advantages. Michigan Medical Service already has 233,000 over-65 subscribers under the general coverage contracts, and about 17,000 subscribers under a special Senior Citizen contract which has been in operation for the past three years.

There was, however, a new concept offered—a provision for nursing home and home nursing service for those over age 65. This would have offered 170 days of care, and necessarily would have required a higher rate. But this proposal was offered as completely voluntary, with no compulsion. It would have given Michigan the same program that was being offered throughout most of the nation. Not a word was said by Blue Shield about cancelling or changing any of the existing contracts—the Senior Citizens were being offered an additional protection in a new contract.

The Insurance Commissioner turned these down, not from his office in Lansing, but from Governor Swainson's campaign bus at Midland, admitting that he had consulted with the Governor. One reason given for this action was that the new proposal was an illegal one, not covered by the Enabling Act, with no assurance that there would be enough nursing homes to care for the subscribers.

The Blues went through a similar question about hospitals twenty-three years ago, when the fear was expressed that there would not be enough hospitals to care for the people who were being offered coverage, but that never become a vital problem. Another reason given was that Blue Cross-Blue Shield were asking for a 50 per cent increase in rates—this was the story given the public by the Commissioner. In actuality there was no rate increase proposed, and no change in benefits for any person presently enrolled in Blue Cross-Blue Shield. A new contract was proposed, and a new rate requested for it. The choice for persons now enrolled was their own—they could retain their present coverage or take the new coverage.

The Senior Citizens of Michigan, and many persons not yet age 65, were upset, fearful that they would lose their Blue Cross-Blue Shield protection as a result of some of the recent misleading statements. They wonder if they should vote in favor of the Kennedy compulsory Social Security program to protect themselves. This has been a vital blow to the very mechanism which the medical profession has developed through these years in an attempt to keep the practice of medicine a voluntary private service. The only increases are voluntary, but are needed, and should be available to all of those who wish to pay the difference. Those who cannot afford the difference could keep their present coverage, or are eligible for care at the Blue Cross-Blue Shield level of benefits under the Kerr-Mills law. A voluntary offering of increased benefits at an increased rate is no excuse for disallowing these programs, but the stress of present politics has made such an excuse.

Michigan Doctor Heads Council for Aged

Frederick C. Swartz, M.D., Lansing, is the new chairman of the Joint Council to Improve the Health Care of the Aged.

The Joint Council, formed in 1958 under sponsorship of the American Dental Association, American Hospital Association, American Medical Association, will hold its Third National Conference in San Francisco in May, 1963.

Dr. Swartz has served as a member of the Michigan Sate Medical Society's Geriatrics Committee since 1952, is a past president of the Michigan Gerontological Society, is president of the Ingham County Medical Society, and is chairman of the American Medical Association's Committee on Aging.

MAP Considers Possible Projects in Careers

The Michigan Association of the Professions Committee on Education reports that it is now considering the major suggestions made at the Second Annual MAP Conference with School Counselors held this summer at Alma College.

Participating in the conference from the profession of Medicine were: A. B. Gwinn, M.D., Hastings; Keith Stackhouse, M.D., Alma; A. H. Veldhuis, M.D., Mt. Pleasant; Frederick J. Chapin, M.D., Bay City; J. F. Sanders, M.D., Alma; Kenneth Magee, M.D., Ann Arbor.

Some of the suggestions from the two-day meeting were:

1. That "Professional Career Clubs" might be effective in Junior High School to help interest more of the talented youngsters to consider careers in the professions.
2. That "Junior High Clubs" for those interested in the professions might meet on Saturdays to provide personal experiences for the teen-agers with professional men and women.
3. That MAP might help develop standardized brochures about each profession to help counselors keep up to date.
4. That MAP members and counselors might form coordinating career information committees on a county level.
5. That MAP might select "Professional Career Information Specialists" from its membership in various communities to provide channels for the local counselors.
6. That the 1963 Conference with Counselors should be held during the school year.

The Michigan Counselors Association is eager to help explore the opportunities ahead and Marshall Moser, President of MCA, has offered to appoint a committee to work with MAP to develop the 1963 Conference.

Charles H. King, LL.B., Dean of the Detroit College of Law and Chairman of the MAP Committee on Education, says all the Conference recommendations will be studied for future action programs.



ANCILLARY 1255

Drug Firms Donate More than Other American Firms

Prescription drug companies and their charitable foundations spent $25 million on public service activities in 1961, amounting to 4.3 per cent of their net taxable incomes.

The survey report, containing detailed information, revealed that drug firms' donations rank well above the all-industry average for public service contributions.

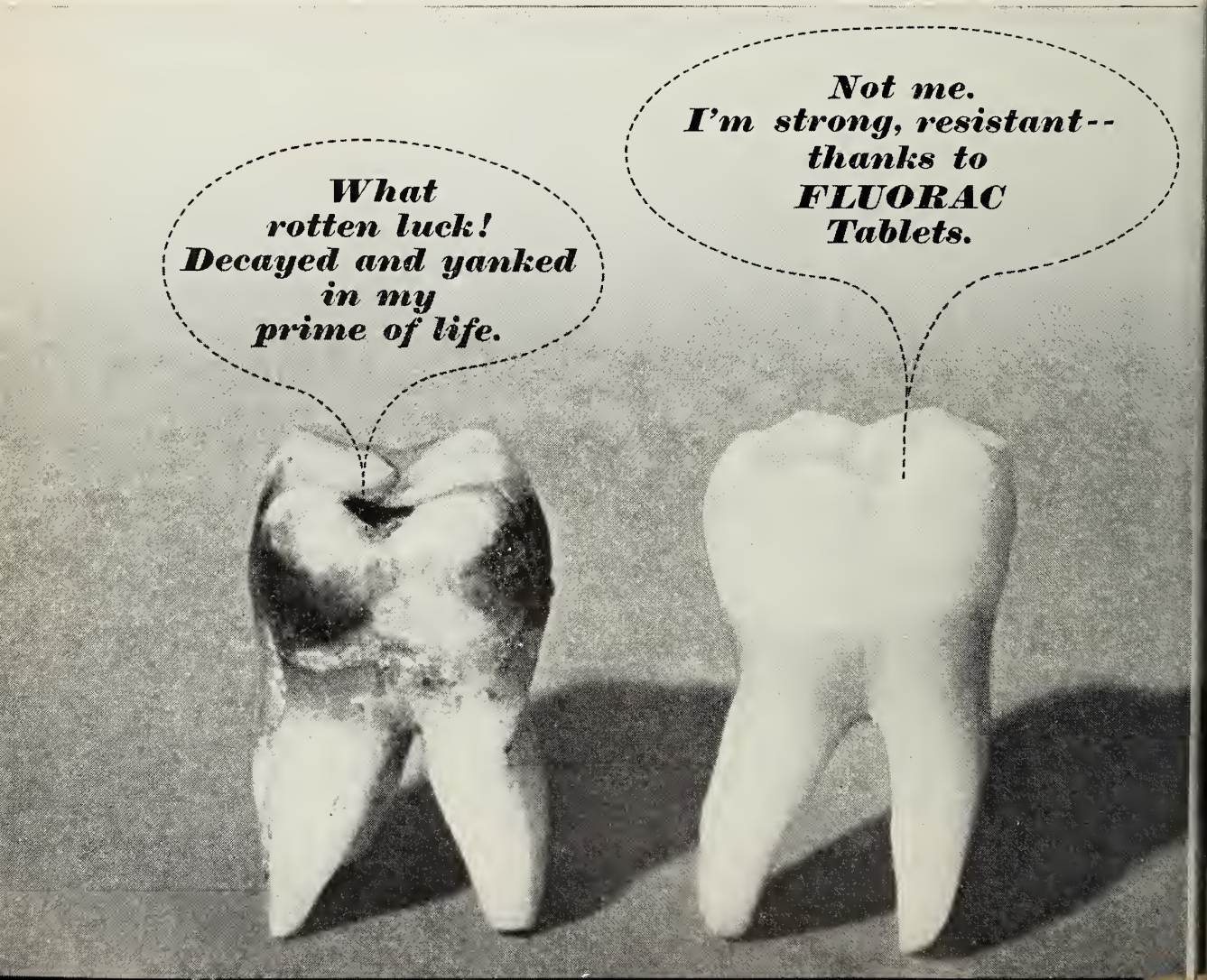
The $25 million in contributions includes $11.0 million in cash donations and $13.0 million in public service activities financed by drug companies. A recent national foundation's analysis of more than one million corporation income tax returns shows gifts averaging one per cent of taxable income. By comparison, prescription drug industry donations are twice this percentage. By portion of their incomes spent on total public service activities is four times as much.

The largest share of the industry's cash contributions, $6.2 million, went for support of schools and universities by grants, fellowships and scholarships. The companies also gave $2.7 million to United Fund drives, local and national health and welfare agencies, and in grants to hospitals. Another $2.2 million was given to church and civic organizations, for various special programs, and to support a wide range of cultural activities.

Blues National Conference Features Annis, Others

Edward R. Annis, President-Elect of the American Medical Association, was one of the featured speakers at the Third Annual Program Conference of Blue Shield Plans, held October 8-10, 1962 at the Americana Hotel in Miami Beach, Florida.

The National Association of Blue Shield Plans sponsored the conference which drew nearly 500 Blue Shield Plans' physician-trustees and executives, as well as sponsoring state and local medical society officers. The three-day Blue Shield conference used as its theme "Achieving Improved Performance." Subjects included some of the basic factors involved in achieving better Blue Shield performance in the interest of the public and the medical profession.



Other speakers included Durward G. Hall, M.D., Representative from Missouri; Norman A. Welch, M.D., Speaker of the House of Delegates of the American Medical Association; Donald Stubbs, M.D., one of three recipients of the 1960 "Health-USA" award.

Twenty-five Await Corneal Transplants

The Michigan Eye Collection Center has about 25 people awaiting corneal transplants, according to John W. Henderson, M.D. Donations are obtained from deceased persons who have earlier pledged their corneas to help others. There are nearly 5,000 eye donor pledges now on file at the eye center, Dr. Henderson says, but the long waiting list for corneas indicates the need for more.

At least 20,000 pledges are required to meet demands for corneal transplants. People wishing to donate their eyes after death may do so by contacting the Michigan Eye Collection Center or their family physician.

During the five year history of the program, more than 180 corneal transplants have been made by U-M doctors. The operation must be performed within 48 hours after removal of the eye from the donor.

Takes Blue Cross Post

Harold L. Tremain, M.D., Detroit, has assumed the newly-created position of assistant medical director of the Michigan Blue Cross. Dr. Tremain, specialist in obstetrics and gynecology, will share top administrative responsibilities over all the various Blue Cross benefit control programs.

Edwin L. Harmon, M.D., is director of the Blue Cross Medical division.

AMA Athletic Conference Soon

The Fourth National Conference on the Medical Aspects of Sports will be held in Los Angeles, November 25, 1962, in conjunction with the AMA Clinical Meeting.

Subject matter will include injuries to the extremities, head protection for athletes, health aspects of water sports, medical supervision of track and field, and others.

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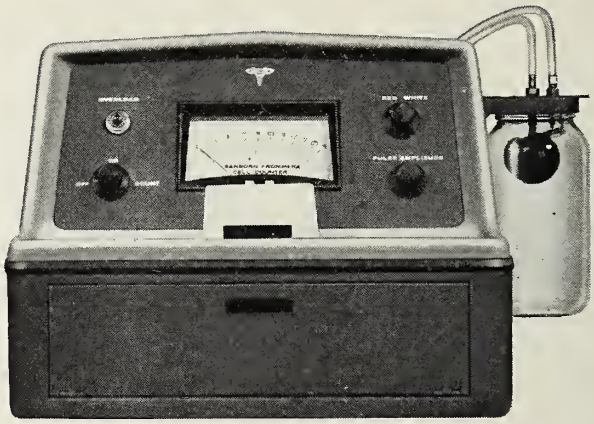
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ALBERT E. HEUSTIS M.D., State Health Commissioner

Hospital Licensing in Michigan

Recently hospital licensing in Michigan has become of considerable interest. Yet there is still some confusion and misunderstanding about this subject even within the medical profession itself. This confusion may arise, in part, from the fact that the state health commissioner has several areas of statutory responsibility with regard to hospital standards.

Basic Obligations

Basically the state health commissioner is legally responsible for the 1) licensure of all the maternity hospitals, 2) the certification to the Department of Social Welfare of all hospitals eligible to receive public funds for the care of welfare patients, and 3) the approval of all tuberculosis hospitals, as well as hospitals assisted by Hill-Burton funds. In effect this means that almost all hospitals in Michigan—other than a few private specialized hospitals—are required by law to meet established standards.

In 1951 when the licensing of maternity hospitals became the responsibility of the State Health Department, rules and minimum standards were developed which were published in the Administrative Code on April 1, 1954. In the development of these rules and standards, a hospital committee was established made up of physicians, nurses, hospital administrators, and representatives of the lay public. This committee continues to serve as an advisory group to the state health commissioner on any necessary changes in the standards. It should be emphasized that the rules and standards for hospitals in Michigan were developed to protect the hospital as well as the patient and that they do not in any way deal with the practice of medicine in terms of directing the physician in the care of his patient.

Cooperative Effort

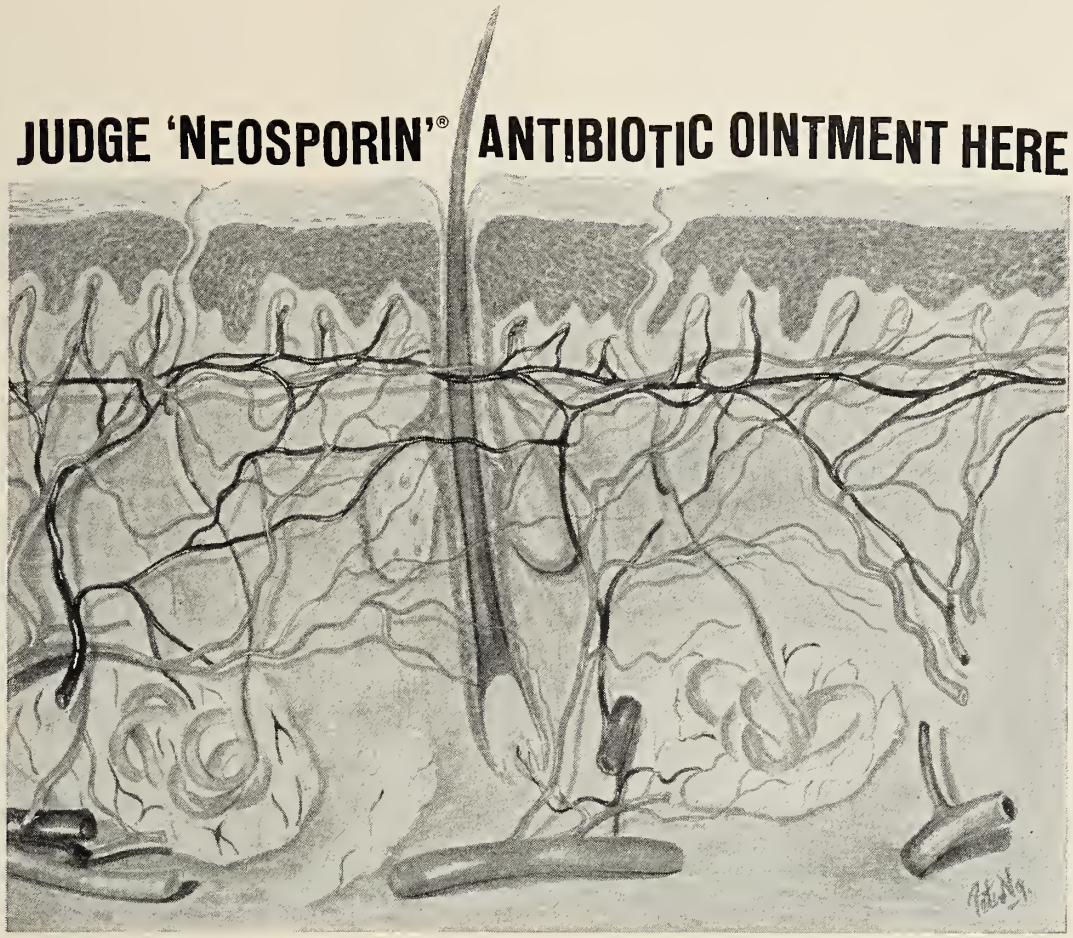
In the administration of these standards, emphasis has always been placed on cooperative effort rather than on simple enforcement. In fact, the program is deliberately and meaningfully referred to as a hospital *consultation* and licensing program rather than as a program with a strictly regulatory function. While the primary responsibility for the administration of the hospital licensing program is with the Division of Maternal and Child Health, almost every division of the department plays an important role. Public health engineers provide assistance with environmental aspects of hospitals: water, waste disposal, ventilation, the safe use of sources of ionizing radiation; public health laboratory people work closely with hospital diagnostic laboratories and blood banks; public health epidemiologists deal with the control of infections; public health nurses provide consultant service on nursing procedures and techniques; and public health statisticians assist hospitals in the proper development of birth and death records. Our approach has always been to try to assist hospitals to more than meet the various standards required for licensure. For example, when the program began in 1951, we had drawn up some 199 rules and minimum standards but initially we required hospitals to comply with only four. Even so, at that time only slightly more than half of the 257 hospitals with maternity departments were able to comply with these four rules. The other hospitals were therefore issued one year provisional licenses which were renewable twice for a total of three years.

Rules Increased

In 1955 the number of rules made mandatory for full licensure was raised to 93. Because we had worked with hospitals and because they knew what requirements would be expected in the future, nearly 88% qualified for full licenses. Three years later, 40 more rules were put into immediate effect and by that time 95% of the hospitals were able to comply. Today the number of immediate compliance rules is 172 and 97% of the maternity hospitals have been issued full licenses. Similar progress has marked the program of certification of hospitals accepting welfare patients. With the help of the advisory group, we have attempted to stay ahead—but not too far ahead—of current practices.

(Continued on Page 1264)

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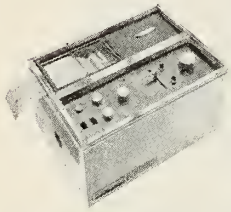
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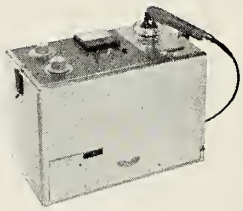
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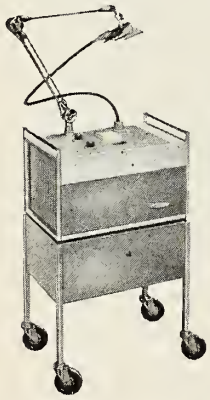
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MW-200 Microwave Diathermy produces temperature increases in muscle tissue up to 7.81° at a depth of 5 cms. (2"). Floating arm permits fast, easy positioning of treatment directors. Compact, mobile design.

In addition to the equipment illustrated here, Burdick offers a complete line of muscle stimulators, short wave diathermy units, cardiac monitors and electrosurgical apparatus, photomotograph, cardioscope, defibrillators, pacemaker, infrared and ultraviolet lamps. For more information, call your local Burdick dealer or write The Burdick Corporation, Milton, Wisconsin.

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HOSPITAL LICENSING IN MICHIGAN

(Continued from Page 1262)

Trend to Bigger Hospitals

The licensing and certification program in addition to helping hospitals raise their own standards has also resulted in voluntary closing of many small 2 or 3 bed maternity homes. In 1955, for example, there were 230 licensed hospitals with 3,748 maternity beds. Today although the number of licensed hospitals has dropped to 214, the number of maternity beds has increased to 4,048. The trend, obviously, is toward the larger, better staffed, and better equipped hospitals.

Inter-Agency Coordination

It should be made clear that the hospital consultation and licensing program is carried out in close cooperation with other agencies both official and voluntary. Among the official agencies we work closely with the Fire Marshal's Office of the Michigan State Police, the Department of Social Welfare, and the Crippled Children Commission; among the non-official agencies, we work closely with the Michigan Hospital Association, the Osteopathic Hospital Association, physicians' organizations, the Michigan Dietetic Association, the Society of Bacteriologists, and others.

Whatever success we have had in emphasizing consultation and cooperative effort and minimizing law enforcement is due largely to the good working relationship with all groups concerned with hospitals and with the improvement of patient care.

Maxims/Reveno

Undulant fever occurs most often in the fourth decade and rarely in those under age 5.

The diagnostic value of the agglutination test for undulant fever is not altered by antibiotic therapy.

Blood stream infection with B Coli may occur when there is severe liver disease.

A lung abscess or pneumonia that fails to subside may conceal a co-existing carcinoma.

Patients with idiopathic pleural effusion should be rechecked for tuberculosis periodically for at least five years.

Suspect thyrotoxicosis as an underlying factor in angina pectoris decubitus; also when angina pains are relieved by iodine or antithyroid drugs.

Juvenile arteriosclerosis is produced by hypertension resulting from kidneys that are either underdeveloped, contracted, cystic or glomerulonephritic.

—From *711 Medical Maxims* II
by W. S. Reveno, M.D.

Say you saw it in the Journal of the Michigan State Medical Society



Diagnosis: Rheumatoid arthritis

Complication: Pocketbook syndrome

New therapy: HEXADROL®

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Clinical background? This steroid has a recorded history unequaled in scope and authoritativeness among all the newer corticoids. **Quality?** HEXADROL, brand of dexamethasone 'Organon'...your assurance of professional quality through research, production and control. **Dosage flexibility?** Tablets 0.75 mg. and new strength 0.5 mg., plus new form, Elixir (0.5 mg. per 5 ml.) now available to meet prescription needs.

Cost-to-patient? Greatly reduced! Why not check with your local pharmacist on prescription cost to your patients?

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Pathology Comment

Items published here are provided by the Michigan Pathological Society

Iron and Iron-Binding Capacity as Aids to Clinical Diagnosis

Although much progress has been made in recent years toward understanding the physiologic mechanisms involved in iron metabolism and transport, our knowledge of all the factors concerned remains fragmentary. Absorbed from the bowel as ferrous hydroxide, iron is combined with a protein, *apoferritin,* to form *ferritin.* Upon entering the circulatory system all of the non-hemoglobin iron in plasma is bound to a beta-1 globulin called *transferrin* or *siderophilin.* From 50 to 80 per cent of transferrin normally remains free of iron, constituting the potential "iron-binding capacity" of the serum.

Normal Values

Plasma iron levels show considerable individual variation and the normal limits reported by various authors are somewhat different; levels from 65 to 175 micrograms per 100 ml. are usually in prebreakfast specimens. These levels undergo a drop of up to 30 per cent during the day and an increase at night. Lower levels are common in children. Vitamins and hormones influence plasma iron levels; nicotinic acid causes a temporary hyperferremia, while epinephrine, estrogens, ACTH, and cortisone cause lowered levels.

The iron-binding capacity remains much more constant and has been found to be a valuable adjunct to plasma iron level measurements, especially in problems of anemia and hepatic disorders.[1] Normal adult values range from 252 to 410 micrograms per 100 ml. Check with your pathologist to determine the normal range for his methods.

Some of the usual variations are listed in the accompanying table.[2, 3]

Condition	Iron	Iron-binding Capacity
Childhood	Low	High
Iron-deficiency anemia	Low	High
Megaloblastic anemia (untreated)	High	Low
Megaloblastic anemia (treated)	Low	Low-Normal
Hemolytic anemias	High	Low-Normal
Aplastic anemia	High	High
Anemia of azotemia	Low	Low
Anemia of pregnancy	Low	High
Anemia with chronic infection	Low	Low
Malignant disease	Low-Normal	Low
Erythremia (untreated)	Normal-High	Normal
Cirrhosis	Low	Low

References

1. Mandel, E. E.: Serum iron and iron-binding capacity in clinical diagnosis. Clin. Chem., 5:1, 1959.
2. Wintrobe, M. M.: Clinical Hematology. Ed. 5. Philadelphia: Lea & Febiger, 1961.
3. Miale, J. B.: Laboratory Medicine—Hematology. Ed. 2. St. Louis: C. V. Mosby Co., 1962.

Nursing Home Convention

The Mid-America Nursing Home Convention will be held at the Edgewater Beach Hotel, Chicago, November 13-15. The meeting will feature physicians and others dealing with problems facing nursing home administrators.

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Brief and to the Point

ADDED HONORS—Recently elected vice-president of the Amer-can Section of the International College of Surgeons is E. I. Carr, M.D., Lansing. He also was re-elected chairman of the board of directors. He served as oral examiner recently for the surgeons apply-ng for fellowship in the College, and then participated in the bien-nial congress of the college in New York when surgeons attended rom 70 countries.

* * *

HONORED—The Kent County Chapter of the National Cystic ibrosis Research Foundation has honored Mark W. Dick, M.D., nedical advisor of the chapter, for "constant reliability and influence eading to better understanding of the disease throughout Western Michigan." Doctor Dick was instrumental in the establishment this all of a cystic fibrosis referral clinic at Butterworth Hospital.

* * *

ABOARD S.S. HOPE—At least two Michigan doctors are cur-ently aboard the S.S. Hope in Peru. Reports have reached MSMS hat John D. Langston, M.D., Detroit, and Malcolm C. Young, M.D., Muskegon, are on this second cruise of the S.S. Hope. Both are athologists. Among the special projects of the Hope staff are the stablishment of a third-year program for the Peru University medical chool and the establishment of medical services for the city of Oroya.

* * *

COLLEGE OF NURSING COVERS THE GLOBE—Twenty-three tudents from 13 countries are studying this fall in Wayne State Jniversity's College of Nursing. Their areas of interest and study ange from teaching, general nursing and administration of nursing rograms to nursing service administration.

* * *

NEW FACTORY—One of the most modern pharmaceutical anufacturing plants went into full operation in October at the chering Corporation's production center at Union, N. Y. The 5.5 illion-dollar structure, is the largest single construction project in chering's history.



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STUDENT EXCHANGE—A pilot program for international medical student exchange has been announced by James A. Brooks, president, Student American Medical Association. The first year's operation of the exchange program will be confined to approximately fifteen medical school centers in the Eastern part of the United States where interest has been evidenced by the school faculties and administration.

* * *

STRESSES IMMUNIZATION—"Parents should constantly check the immunization status of their children," says Albert E. Heustis, M.D., State Health Commissioner.

"In Michigan this year, we have had six cases of polio, 1,167 cases of whooping cough, three cases of diphtheria, five cases of tetanus. And while we have had no reported cases of polio deaths, we have already had two deaths from whooping cough, two from diphtheria, and one from tetanus. These were needless deaths, because there is an effective vaccine against each of these diseases, and they can be combined into a single solution for one-shot immunizations."

* * *

URGES HEARING TESTS—Parents should be alert to hearing problems in their children and to make every effort to have regular examinations by the family physician, urged Walter P. Work, M.D., Ann Arbor, in a MSMS radio broadcast. Doctor Work, in discussing the various hearing disorders, estimates that 16,000 Michigan school children are hard of hearing.

* * *

TAKES COMMAND—Richard R. Cameron, M.D., is the new medical superintendent for the state mental hospital at Newberry. He succeeds T. W. Thompson, M.D., recently honored by the community, retiring after 25 years of service with state hospitals for the mentally ill. Doctor Cameron formerly served in Colorado and Washington, D.C.

* * *

COMMODORE—Klemm Harvey, M.D., Muskegon will be Commodore of the Western Michigan Yachting Association for 1963. He took several coveted racing cups this summer, finishing first in the Western Michigan "E" boat regatta, the Muskegon Invitational Regatta and the White Lake Yacht Club seasonal race series.

* * *

OPERATING ROOM TECHNIQUES—Conference for Teaching Operating Room Techniques will be held November 5-16, at Kellogg Center, Michigan State University. This conference, sponsored co-jointly by the Michigan State Nurses Association and the MSU School of Nursing, seeks to prepare nurses concerned with operating room supervision or education.

* * *

VISITS CHINA—Reed M. Nesbit, M.D., Ann Arbor, is home after a six-week trip to China. He also visited Taiwan, Hong Kong, Taipei and Quemoy. In Taipei, Dr. Nesbit met President and Mme. Chiang Kai-Shek, who gave him one of her original paintings to be presented on her behalf to the University Regents in gratitude for the honorary degree which the U-M conferred upon Mme. Chiang a few years ago.

(Continued on Page 1274)

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1. Stevenson, L.E.: M. Ann. District of Columbia *30*:409 (July) 1961.



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'Eskatrol' *Spansule* capsules should be used with caution in the presence of severe hypertension, advanced cardiovascular disease, or extreme excitability.

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Q-7

(Continued from Page 1272)

WATER POLLUTION—To help battle water pollution, the University of Michigan School of Public Health will increase the number of graduate students chosen for professional training in this field. The U. S. Public Health Service has just awarded the U-M a five-year $250,000 grant to provide scholarships for students in the two-year training program.

* * *

GRANT TO WAYNE—The U. S. Public Health Service has awarded $454,998 to Wayne State University to create a General Clinical Research Center for Children at Children's Hospital. Support totaling $250,000 for each of the next six years will bring the final amount of the U. S. grant to almost $2,000,000. The grant includes funds for necessary renovation of facilities and fixed equipment as well as for hospital care of research patients. Charles F. Whitten, M.D., will direct the program.

* * *

BOOKLET OFFERED—The Institute of Physical Medicine and Rehabilitation, New York University Medical Center, has announced publication of a rehabilitation monograph on "Self-Help Devices," by Howard A. Rusk, M.D., director of the Institute, and Edward W. Lowman, M.D., director of the Institute's Arthritis Self-Help Devices Office. The publication includes descriptions of devices designed to help disabled persons to achieve independence in everyday aspects of living.

* * *

JOINS MHS—Theodore W. Sill, Jr., New York steel and aluminum company executive, is the new enrollment director of Michigan Hospital Service. He succeeds H. G. Pearce, recently named vice-president of the Blue Cross Association in Chicago. Mr. Sill, for 17 years in the sales management and sales training fields, is an alumnus of Princeton University.

"Common Touch" Needed

Physicians must "give thought to how they can demonstrate and prove that they do have the old-fashioned doctors' genuine interest in the individual and in the family," said E. Howard Hill, president of the Iowa Farm Bureau Federation, in the keynote address recently at the third Regional Rural Health Conference in Des Moines.

The picture of both the farmer and the doctor which has been presented to the public is often unjust, Hill said. But he stressed that as an essential part of effective public relations both groups must continually seek to improve themselves.

Hill emphasized the "common ground" of farmers and doctors in their mutual dedication to the private enterprise system. This may be a reason why, "perhaps more than any others, doctors and farmers have been singled out for attack," he said.

AMA Clinical Session Soon on West Coast

The American Medical Association clinical session in Los Angeles, November 25-28, is expected to draw an attendance of 12,000, half of them physicians.

Convention headquarters will be the Biltmore Hotel, and the scientific sessions will be held at the Shrine auditorium. Shuttle bus service from principal downtown hotels to the auditorium will be provided.

George R. Meneely, M.D., Secretary of the AMA Department of Scientific Assembly, said that more than 100 physicians will deliver lectures on the scientific program and more than 200 scientific and industrial exhibits will be shown at the auditorium. Some of the scientific exhibits will deal with subjects of particular interest to general practitioners—heart and circulatory ills, high blood pressure, arthritis and rheumatism, psychiatry, and obstetrics and pediatrics.

Dr. Meneely said that the Los Angeles session, like other AMA meetings, is "an important medium of continuing education for the busy practicing physician. Today's doctor must study and investigate the phenomena and mechanism of disease, thereby improving the science and art of medicine."

Kennedy Signs Keogh Bill; 12-Year Effort

President Kennedy has signed into law H.R. 10 to permit physicians and other self-employed persons to take federal income tax deduction for private retirement plans.

Enactment of the legislation into law climaxed a 12-year battle in Congress. The House passed it twice, in 1958 and 1959, but it died each time in the Senate with adjournment.

This year the House passed it with a 361-0 vote. The Senate vote was 70 to 8.

The new law authorizes a self-employed individual, such as a physician, to contribute up to 10 per cent of his earned income or $2,500, whichever is less, toward a retirement plan, provided he includes all of his employees with three or more years of service under the plan. A tax deduction of half of the contribution to the self-employed person's retirement plan would be allowed.

The contributions made on behalf of employees would be fully tax deductible.

The measure prohibits drawing on the retirement funds without penalty before age 59½, except in case of disability or death.



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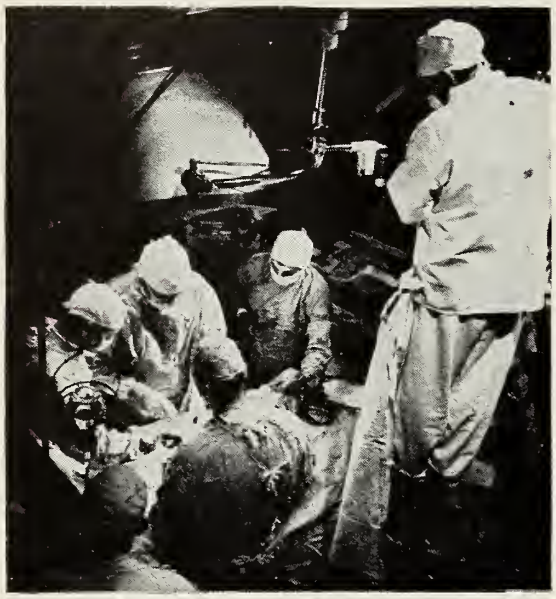
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IN MEMORIAM

JOSEPH L. EGLE, M.D., 64, Gaylord physician, died unexpectedly July 26, 1962.

A 1922 graduate of St. Louis University School of Medicine, Doctor Egle practiced medicine at Monroe, Michigan and Toledo, Ohio, from 1923 to 1931. From 1931 to 1937 he was the chief resident physician at Herman Kiefer Hospital, Detroit. Then he was appointed superintendent of the Northern Michigan Tuberculosis Sanatorium on July 1, 1937, which position he held until the time of his death.

Memberships included the American Trudeau Society, the National Tuberculosis Association and the Tri-State Pembine Therapy Conference.

DAVID J. SANDWEISS, M.D., 63, Detroit internist, died August 15, 1962.

A University of Michigan Medical School graduate, Doctor Sandweiss had been in private practice in Detroit for 37 years. He was an associate professor of medicine at Wayne State University for 25 years and was the author of several scientific publications. His book "Peptic Ulcers" is considered a standard work on the subject.

At Sinai Hospital, Detroit, where he served as chief of the gastroenterology section, Doctor Sandweiss developed and formerly headed the hospital's research department. He was on the staff of Harper Hospital and a member of the Maimonides Medical Society.

DIRK J. SCHOLTEN, M.D., 83, Kalamazoo physician since 1908, died August 25, 1962, as the result of injuries suffered in an automobile accident.

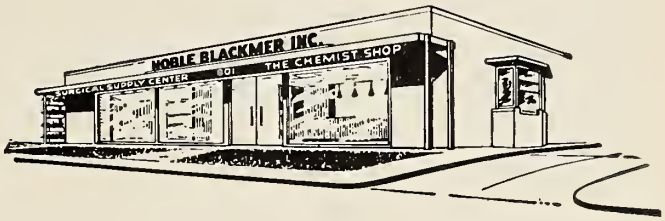
Doctor Scholten received his MD degree in 1904 from the University of Illinois, and practiced in Iowa prior to establishing his practice in Kalamazoo in 1908.

He was on the staffs of Bronson Methodist and Borgess Hospitals and formerly served on the Board of Directors of the Cutlerville Sanatorium, and on the Kalamazoo Board of Education. He was a life member of the Michigan State Medical Society.

"Doing for people what they can and ought to do for themselves is a dangerous experiment. In the last analysis, the welfare of the workers depends upon their own initiative. Whatever is done under the guise of philanthropy or social morality which in any way lessens initiative is the greatest crime that can be committed against the toilers. Let social busybodies and professional 'public morals experts' in their fads reflect upon the perils they rashly invite under this pretense of social welfare."—*Samuel Gompers,* President 1886-1894; 1896-1924, American Federation of Labor.

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Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

CLINICAL OBSTETRICS AND GYNECOLOGY. Volume 5, Number 1. The Newborn, Edited by Michael Newton, M.D.; Office Gynecology, Edited by Roger B. Scott, M.D., March, 1962 issue. Published quarterly by Hoeber Medical Division, Harper and Brothers. Sold by subscription only, $18.00 per year.

The first section of this book dealing with "The Newborn" not only encompasses the physiology but includes the social, psychological and epidemiological aspects as well. The relationships of the newborn problems to both the mother and the father are well brought out. The two chapters of greatest interest to the practitioner are those entitled "World-Wide Cure of the Mother and Newborn Child" and "Respiratory distress syndrome in the Newborn."

The second section deals with "Office Gynecology." The subjects treated here include Cytology as viewed by the pathologist and then by the clinician, Cancer Detection, Cervical Erosions, Vulvular Lesions and Infections. The chapter on "Geriatric Office Practice" is very well done, as is the chapter on "Psychosomatic Illnesses." The concluding chapter deals with "Ovarian or Adnexal Enlargements" and continues into the time when they cease to be office problems. This section is of prime interest to the gynecologist, but is also of interest to the general practitioner.

SYNOPSIS OF OBSTETRICS. By Charles E. McLennan, M.D., Professor of Obstetrics and Gynecology, Stanford University School of Medicine, Palo Alto, California. Sixth edition, with 157 illustrations, including 4 in color. St. Louis: C. V. Mosby Company, 1962. Price, $6.75.

This sixth edition of a comprehensive but concise synopsis of obstetrics has organized the standard material and brought the subject matter up to date. The outmoded procedures have been deleted. Two of the salient features of the book are its outline form and its illustrations.

This is a compact presentation of the outstanding features of obstetrics and is of value not only to the obstetrician, but to all practitioners of medicine as well.

PEDIATRICS. 13th edition. By L. Emmett Holt, Jr., Professor of Pediatrics, New York University School of Medicine; Consultant in Pediatrics, Bellevue Hospital, New York; with Rustin McIntosh, Carpentier Professor Emeritus of Pediatrics, Columbia University; Consultant in Pediatrics, Presbyterian Hospital; former Director of Pediatric Service, Babies Hospital, New York, and Henry L. Barnett, Professor and Chairman, Department of Pediatrics, Albert Einstein College of Medicine, Yeshiva University; Director of

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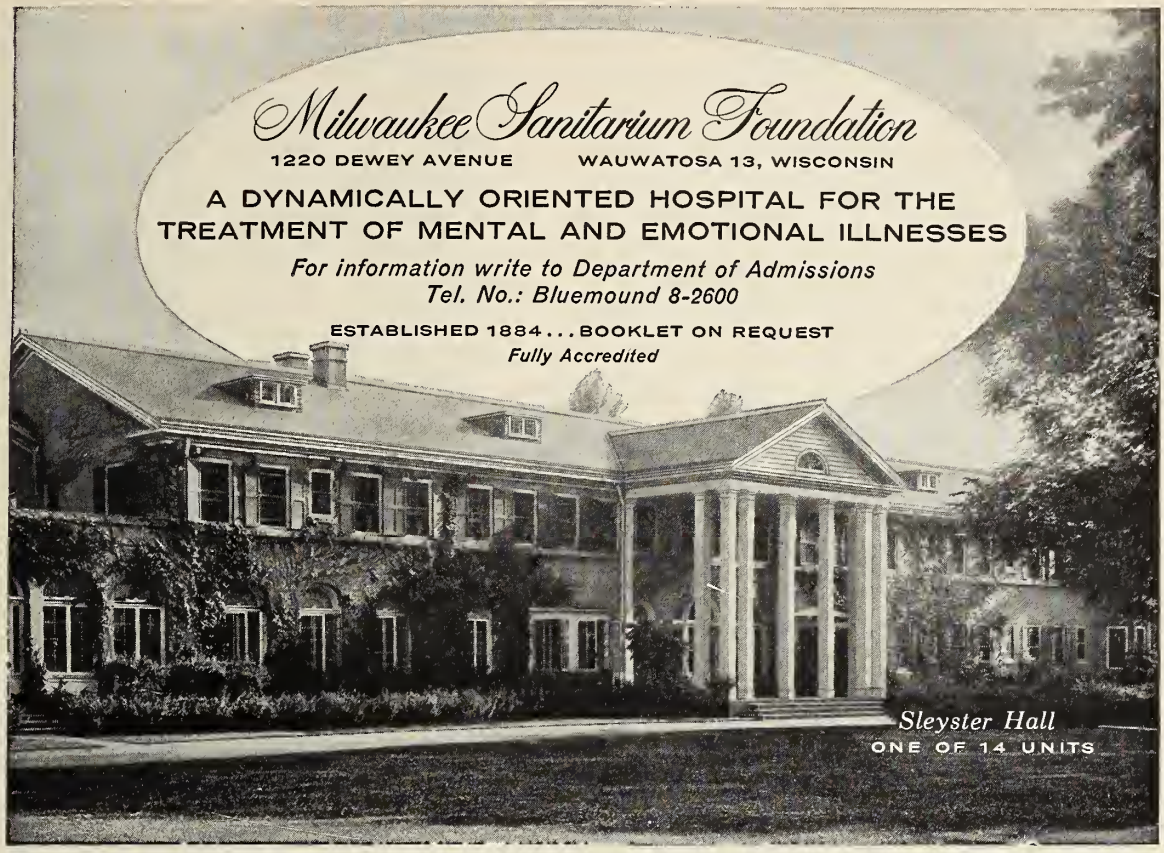
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Pediatric Service, Bronx Municipal Hospital Center, New York. New York: Appleton-Century-Crofts, Inc., 1962.

This single volume is an intelligent and comprehensive presentation of current knowledge of Pediatric practice. The author has enlisted the help of 81 writers with special interest in the care of children and welded their information in a good readable book.

The sections on heart, metabolism and hematology are new and very well written. In addition, about 80 new subjects have been added to the current volume.

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Future Annual Sessions, MSMS

1963: September 25, 26, 27, Civic Auditorium, Grand Rapids.

1964: September 30—Oct. 1, 2, Sheraton Cadillac Hotel, Detroit

1965: September 22, 23, 24, Civic Auditorium, Grand Rapids (Centennial)

Future Michigan Clinical Institutes

1963: March 13, 14, 15, Detroit

1964: March 11, 12, 13, Detroit

1965: March 10, 11, 12, Detroit

BOOKS RECEIVED

BASIC ANXIETY. A New Psychological Concept. By Walter J. Garre, M.D. New York: Philosophical Library, 1962. Price $5.00.

FILM CATALOGUE public health service. Washington, D. C.: U. S. Department of Health, Education and Welfare Public Health Service, June, 1962.

SHOCK PATHOGENESIS AND THERAPY. An International Symposium, Stockholm, 27-30 June 1961. Sponsored by Ciba. Chairman: U. S. von Euler, Stockholm. Edited by K. D. Bock, Basle. 120 figures. Berlin: Springer-Verlag, Heidelberg: Goettingen, 1962. Price $13.00.

ESSENTIALS OF PEDIATRIC PSYCHIATRY. By Ruben Meyer, M.D., Associate Professor of Pediatrics, Wayne State University College of Medicine; Attending Pediatrician, Children's Hospital of Michigan; with Morton Levitt, Ph.D., Professor of Psychology in Psychiatry and Assistant Dean, Wayne Sate University College of Medicine, and Mordecai L. Falick, M.D., Associate Professor of Psychiatry, Wayne State University College of Medicine, Training Analyst, Psychoanalytic Training Center of Detroit, and Ben O. Rubenstein, Ph.D., Associate Professor of Psychiatry, Wayne State University College of Medicine, New York: Appleton-Century-Crofts Division of Meredith Publishing Company, 1962.

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Letters to the Editor

Invitation

Every MSMS member is invited to write his views on various subjects to THE JOURNAL MSMS. This "Letters to the Editor" page is waiting for your comments.

This idea is expressed effectively in a recent Association Institute Newsletter:

"Write, don't just read. Your association publishes and mails vastly more communications than it receives in return. A word from you now and then might help improve them. No editor likes working in a vacuum; occasional adverse comments are better than none at all. Constructive criticism is always welcome, especially if it suggests new approaches and is accompanied with new ideas. Send in news items, too, and tips on any developments that should be noted."

* * *

Dear Dr. Haughey:

Three cheers for the doctors of Saskatchewan for setting a precedent!

Just as Aristotle fell before modern science, now Hippocrates must give way to the modern practice of medicine. This does not mean the elimination of morals.

At the time of Hippocrates, politics or economics were not a major factor in the practice of temple medicine. The priests lived as well as kings on donations.

Now that politics and economics are a major factor in medicine, in North America the doctors of Saskatchewan have set a precedent in striking from interference by politics and for income commensurate with expended energy. The progressive income tax doesn't help in the United States.

Charity in time and money should no longer be assumed or forced upon doctors alone. The doctor has to meet his (over-charged) bills, the same as the butcher, the baker, and the candlestick maker.

A lawyer is not imposed upon to contribute financially to the courts because it is his work shop. This is righfully a community problem.

If politics must intrude into medicine, then it must assume responsibility for friction and consequences.

If the doctor is expected to be Hippocrates, then he should be treated as Hippocrates.

Since a doctor must work for his living, he should have the same rights and benefits as any laborer—but without political interference.

Did the United States government stop strikes for increased wages during the Korean War?

After all, can the sons of union men graduating from medical schools expect less consideration?

Cordially yours,
STEPHEN MALINA, M.D.

Bloomfield Hills, Michigan
July 31, 1962



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Dear Dr. Haughey:

An announcement appeared in the July 23rd AMA *News*, re the "Joint Commission on Accreditation of Hospitals."

Dr. McCreary, Chairman of the Committee, appointed by the AMA House of Delegates, "to investigate all facets of the operation of the Joint Commission on Accreditation of Hospitals and report to the House at the 1962 interim session for further study" would like to hear comments from the AMA membership.

May I ask that cognizance of this announcement be taken by THE JOURNAL and published therein.

Very sincerely yours,
R. L. Novy, M.D.
Member, Committee to Study Operations of Joint Commission on Accreditation of Hospitals

Dear Dr. Haughey:

On October 6, the Michigan Psychoanalytic Institute held its first scientific meeting. Jean B. Rosenbaum, M.D. inaugurated this program by presenting a paper entitled "Songs of the Transference." The paper was interestingly discussed by Jack Dorman, M.D. The discussion was then opened to the floor and actively participated in by Drs. August, Boesky, Segel, Krystal, Richardson, Anderson and Schmale. The spirit of the discussion was one of friendly scientific investigation and foretells a meaningful future for this study group.

Sincerely yours,
BEVERLY L. ANDERSON, M.D.

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INTERVIEWS

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November, 1962

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THE COVER

The cover of this Heart issue illustrates defibrillation by external counter-shock for ventricular fibrillation. This follows a continuous "Closed Chest Cardiac Resuscitation" procedure.

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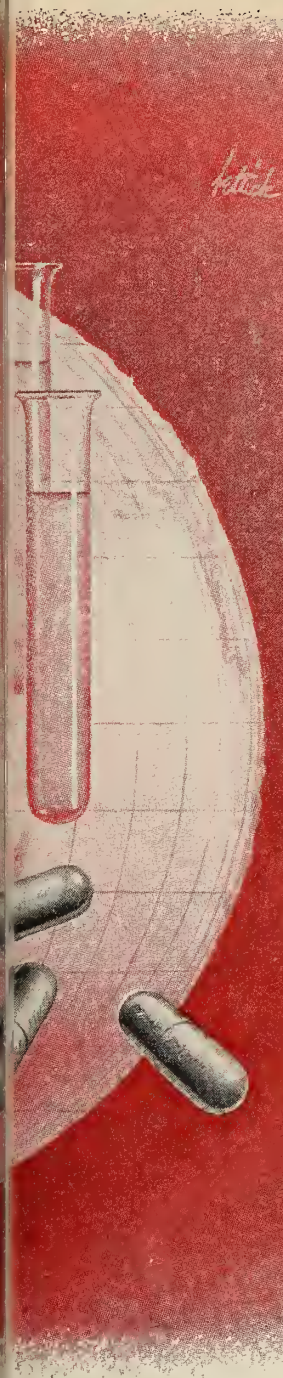
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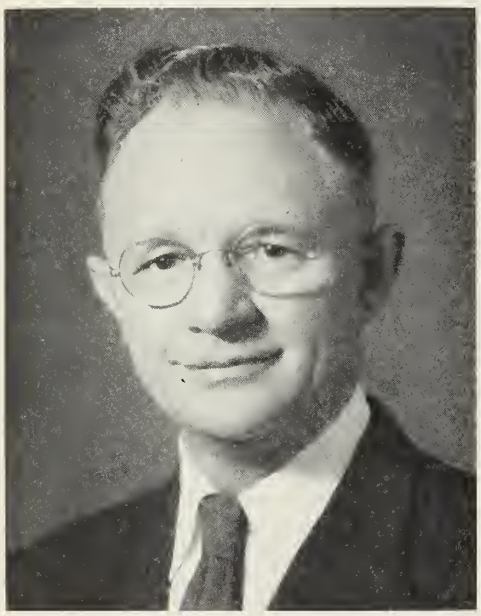
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President's Page

THE CHALLENGE IS TO OURSELVES . . .



C. I. Owen

Michigan State Medical Society

President

Ambitious plans have been adopted by the MSMS House of Delegates for the Michigan State Medical Society.

Numerous excellent suggestions have been made by the Delegates to the component County Medical Societies.

But . . . what happens now depends upon you as an individual member of your own component County Medical Society and your own Michigan State Medical Society.

If we are to reap the full satisfactions of dedicated public service and if we are to improve our skills and techniques, then truly "The Challenge Is To Ourselves."

May I be so bold as to suggest several ways that you, individually, can stand up to meet the many challenges facing us—the many opportunities that are ours.

1. Sincerely, I would urge each of you to attend your component society meetings regularly and to participate in the discussions.
2. Decide today to be an active member of at least one of your component society committees and make it function.
3. And if you already are a component society office or committee chairman, please strive to accomplish the goals you and others have set. They say the good leader has the ability to rally others to work together willingly.
4. And on the MSMS level, we sincerely recommend that you attend the many scientific programs provided for you, that you read your MSMS JOURNAL, that you follow the activities of the MSMS committees that interest you most, and that you offer suggestions to me and the other MSMS leaders to consider.

The MSMS committees for the coming year have been carefully selected. Each committee and each committee member has an important job to do. Their effectiveness will set the pace for the State Society as it moves into carefully developed action programs.

In closing, let me remind you again that your component society is comprised of individuals; no progress is possible unless the individuals contribute. The same certainly is true with the Michigan State Medical Society.

May I add my personal appeal that you, as an individual, decide today to make greater individual contributions to your component County Medical Society, to the MSMS, and certainly to the AMA, too.

MSMS Plans Started For Centennial of 1965



The Michigan State Medical Society has started plans for the Medical Society's 100th anniversary in Detroit in 1965.

"Special activities will be planned to explain a century of service by medicine to the people of Michigan," reports Otto K. Engelke, M.D., Ann Arbor, chairman of the Centennial Committee composed of MSMS past presidents.

"It is fitting that the 100th observance be in Detroit because MSMS was formed there in 1865," comments Doctor Engelke.

In 1819, eight doctors of medicine—who cared for the settlers in the wilderness community of Detroit—began the first medical organization in this area. That group, known as the Medical Society of the Territory of Michigan, continued until the present Michigan State Medical Society was chartered.

The 100th Anniversary is expected to draw a large percentage of Michigan doctors.

All related medical and health groups will be invited to meet also in Detroit in 1965.

MSMS Honors Four Distinguished Doctors of Medicine

Four distinguished Michigan doctors of medicine were presented special honors by the 1962 Michigan State Medical Society House of Delegates.

The four physicians were chosen to receive "Certificates of Commendation" for "outstanding contributions to medicine in Michigan."

Nominated by a special awards committee of the House of Delegates and approved by the House of Delegates were Jerome W. Conn, M.D., Ann Arbor; G. D. Cummings, M.D., Lansing; C. S. Kennedy, M.D., and Robert L. Novy, M.D., both of Detroit.

The citations read as follows:

Jerome W. Conn, M.D., Ann Arbor—"In recognition of his distinguished career in medical research and teaching. He is internationally known in research for his discovery of a new disease called 'Primary Aldosteronism' or 'Conn's Syndrome.' Dr. Conn is highly respected as an outstanding teacher in the field of endocrinology and metabolism."

G. D. Cummings, M.D., Lansing—"In recognition of his outstanding achievements in public health and laboratory research. He is a long-time associate in the Michigan Department of Health, serving now as Associate Commissioner and continuing to distinguish himself as Director of Laboratory Services. One of his outstanding contributions has been the development of a blood fractionation program."

C. S. Kennedy, M.D., Detroit—"In recognition of his enviable record as a medical teacher and surgeon. He has been associated many

years with Detroit hospital staffs in administrative positions and is a respected master teacher of surgery. Dr. Kennedy has distinguished himself also in civic service, particularly as a Regent of the University of Michigan."

Robert L. Novy, M.D., Detroit—"In recognition of his distinguished leadership to state and national Blue Shield Plans. He was president of Michigan Medical Service for 13 years and has given even longer service to Michigan Medical Service Board of Directors. Dr. Novy is an outstanding medical statesman in his county, state and national medical societies."

The establishment of this new MSMS awards program was authorized by the 1961 House of Delegates. The Delegates then voted to abolish the "Foremost Family Physician" Award, and in its place resolved: "That the House of Delegates of the Michigan State Medical Society, through a Committee to be appointed by the Speaker of the House of Delegates, establish and award 'Certificates of Commendation,' which may include both scientific and/or public service, and which may be awarded to one or several physicians annually who distinguish themselves in the Medical Profession."

Study Perinatal Mortality

The Michigan Department of Health has sent memoranda to hospital administrators and related personnel concerning a perinatal mortality study carried out by the department in cooperation with the Michigan State Medical Society. The hospitals have been divided into several groups and each hospital is, by means of a colored bar, given the opportunity to compare where it stands with the other hospitals in the group. Details about the study may be obtained from Goldie B. Corneliuson, M.D., Director, Maternal and Child Health Division, Michigan Department of Health, Lansing 4, Michigan.

Michigan Medical Meetings

1962

Michigan Health Council State Conference, December 4 and 5, Union Bldg, Ann Arbor.

MSMS Council, MSMS headquarters, December 12, East Lansing.

1963

MSMS Council, MSMS headquarters, January 25-26, East Lansing.

Michigan Society of Gerontology, January 24-25, Bancroft, Saginaw.

County Secretaries-Public Relations Seminar, January 24, Lansing.

Michigan Association of the Professions Congress, February 8-9, Jack Tar, Lansing.

Michigan Heart Day, February 8-9, Statler Hilton, Detroit.

Canadian-American Medical and Dental Ski Association, March 4-6, Iroquois Mountain, Brimley.

Michigan Clinical Institute, March 13-14-15, Sheraton-Cadillac Hotel, Detroit.

Doctors Receive Coveted "Fifty-Year Pins"

Thirty-five Michigan Doctors of Medicine were cited by the 1962 House of Delegates for "50 Years of Service."

Names of the men, reported by their own component medical society, were approved by the delegates for the coveted "50 Year Pins."

Some of the honorees were presented to The House of Delegates to personally receive the recognition and pin. The pins were mailed to those who were unable to be present.

"Congratulations and Best Wishes" are extended to the following awardees listed alphabetically by counties:

Allegan County:
Willard R. Vaughan, M.D., Plainwell.

Houghton-Baraga-Keeweenaw Counties:
Alfred LaBine, M.D., Houghton.

Ingham County:
Earl I. Carr, M.D., Lansing.

Kent County:
Edward H. Hunderman, M.D., Grand Rapids.
Elmer W. Schnoor, M.D., Grand Rapids.
John N. Wenger, M.D., Coopersville.

Manistee County:
Homer A. Ramsdell, M.D., Manistee.

Muskegon County:
William S. Chapin, M.D., Muskegon Heights.
C. B. Fleischmann, M.D., Muskegon.
Vilda S. Laurin, M.D., Muskegon.

Oakland County:
E. Kyle Simpson, M.D., Chatham, Ontario.

Ottawa County:
Cornelius E. Boone, M.D., Zeeland.

St. Clair County:
Marion E. Bovee, M.D., Port Huron.
Thomas Henry Cooper, M.D., Port Huron.
Clarence D. Selby, M.D., Port Huron.

Sanilac County:
John C. Webster, M.D., Marlette.

Wayne County:
Julius Y. Burnstine, M.D., Detroit.
George C. Burr., M.D., Detroit.
Edward K. Carmichael, M.D., Detroit.
Clair L. Douglas, M.D., Detroit.
Edward J. Durocher, M.D., Ecorse.
Clarence H. Eisman, M.D., Grosse Pointe.
George A. Ford, M.D., Detroit.
Ledru O. Geib, M.D., Detroit.
Leo E. Grajewski, M.D., Detroit.
Ellis R. Green, M.D., Detroit.
Willard B. Howes, M.D., Royal Oak.
Charles W. Husband, M.D., Detroit.
Carey P. McCord, M.D., Ann Arbor.
Hugh A. McFadyen, M.D., Detroit.
Lyman J. Pinney, M.D., Detroit.
Paul C. Rohde, M.D., Detroit.
George Sewell, M.D., Birmingham.
Rudolph G. Tenerowicz, M.D., Detroit.

An award for Leo G. Christian, M.D., Lansing, was made posthumously. He died September 1, 1962, after being certified for the honors.

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Photos from the MSMS Annual Session



At Left—Following his election by the Delegates as President-Elect, O. J. Johnson, M.D., Bay City, is escorted to the rostrum by Clarence I. Owen, M.D., left, MSMS President, and O. B. McGillicuddy, M.D., right, Chairman of the MSMS Council.





Above—Re-elected for another year as Speaker of the House of Delegates was James J. Lightbody, M.D., Detroit.

At Left—As his last official act, Otto K. Engelke, M.D., installs Clarence I. Owen, M.D., as the new president of the Michigan State Medical Society.



Above—Installed as President of the Woman's Auxiliary, at the Auxiliary annual meeting, was Mrs. Ross V. Taylor, Jackson, to succeed Mrs. Clarence I. Owen.



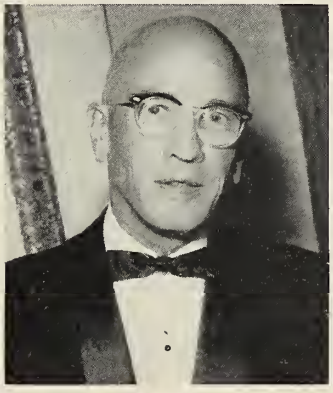
Above—President for the Michigan State Medical Assistants Society for 1962-63 is Miss Catherine LaPres, right, Muskegon, who succeeds Miss Cecile Rutan, left, of Hanover. The MSMAS was host in Detroit for the American Medical Assistants Society convention.



Above—"Certificates of Commendation for Outstanding Contributions to Medicine" were awarded to *(left to right)* Charles S. Kennedy, M.D., Detroit; Robert L. Novy, M.D., Detroit; G. D. Cummings, M.D., Lansing, and Jerome W. Conn, M.D., Ann Arbor.



Above—This photo was taken September 26 when—for the first time in MSMS history—a doctor was president of the Society and his wife was president of the Woman's Auxiliary. It was a happy day for Dr. and Mrs. Clarence I. Owen, Detroit.



At Left—Speaker for the MSMS Annual State Society Dinner-Dance was John S. DeTar, M.D., Milan, honored as the "Biddle Lecturer."



At Right—Three new MSMS Councilors were chosen by the Delegates. They are *(left to right)* Don W. McLean, M.D., Detroit; A. C. Stander, M.D., Saginaw, and David A. Bowman, M.D., Bay City.

What They Said About the Annual Session

Both Mrs. Lull and I thoroughly enjoyed meeting old friends as well as new acquaintances. We had a most delightful day.

George F. Lull, M.D., *President*
Illinois State Medical Society

* * *

This is to formally thank you and your society for your hospitality so well in line with the nice traditions of your group and Michigan.

I greatly appreciated your invitation which offered me the rewarding opportunity of meeting fine colleagues and attending interesting sessions.

Raymond E. Barzilai, M.D.
Guest Essayist
Washington, D. C.

* * *

Please accept this letter as an expression of my gratitude for having been invited to the MSMS Annual Session. It was an honor to have represented my class.

Until I was exposed to this year's House of Delegates and its actions, I considered "politics" to be a duty of politicians, not physicians. Last week the MSMS Annual Session demonstrated to me that the obligations of a physician do not stop at the four walls of his office of research laboratory.

Robert C. Karlsberg
Junior Medical Student
University of Michigan

* * *

It was, indeed, a pleasure to attend your House of Delegates and Reference Committees. Your delegates spend a lot of time and do excellent work. I hope I learned something that I shall be able to use to improve our meeting.

Mrs. Cox joins me in thanking you for your hospitality and gracious reception that we received from many of your members. We appreciated the fruit delivered to our room and the corsage sent to Mrs. Cox.

David M. Cox, M.D., *President*
Kentucky State Medical Association

* * *

This is a note to thank you for the gracious reception given me on my visit to Detroit for the purpose of addressing the Michigan State Medical Society.

The hospitality was most enjoyable and I feel greatly honored to have been given the opportunity to visit with you.

Edward L. Bortz, M.D.
Past-President of AMA
Guest Essayist
Philadelphia, Pa.

* * *

My visit to Detroit and the participation in the Annual Session of the Michigan State Medical Society was a most enjoyable and rewarding experience. I appreciate the opportunity of being one of the guest speakers.

William A. Meissner, M.D.
Guest Essayist
Boston, Massachusetts

Thank you very much for your generous hospitality on the occasion of the Annual Session of the Michigan State Medical Society in Detroit.

I enjoyed your meeting very much and wished I might have stayed longer.

Daniel H. Bee, M.D., *President*
Pennsylvania Medical Society

* * *

I want to say that I had a very nice time there with so many of the members of the Medical Society last week in Detroit. This was a very attentive group, and I felt that the trip there was well worthwhile. Many thanks for the courtesies which so many of your members extended to me.

Robert E. Gross, M.D.
Guest Essayist
Boston, Massachusetts

* * *

Thank you for your wonderful invitation to join you and your fellow members of the Michigan State Medical Society. I thoroughly enjoyed every minute of it and compliment you on being such gracious hosts.

Jere W. Lord, Jr., M.D.
Guest Essayist
New York, N. Y.

* * *

I wish to take this opportunity to congratulate you on the caliber and the efficient manner in which the meeting was conducted.

Perry P. Volpitto, M.D.
Guest Essayist
Augusta, Georgia

* * *

At this time I wish to express my thanks to the Medical Society for making my visit to Detroit to talk to your group so pleasant. I would like to make a brief comment on the very excellent way in which the projectionist worked; the slides were clear, in focus, and were changed rapidly without loss of time.

Sture A. M. Johnson, M.D.
Guest Essayist
Madison, Wisconsin

* * *

I want to thank you for inviting me to speak before your Society. I am very impressed at the high degree of organization and care with which your Society handles its affairs.

Richard B. Stoughton, M.D.
Guest Essayist
Cleveland, Ohio

* * *

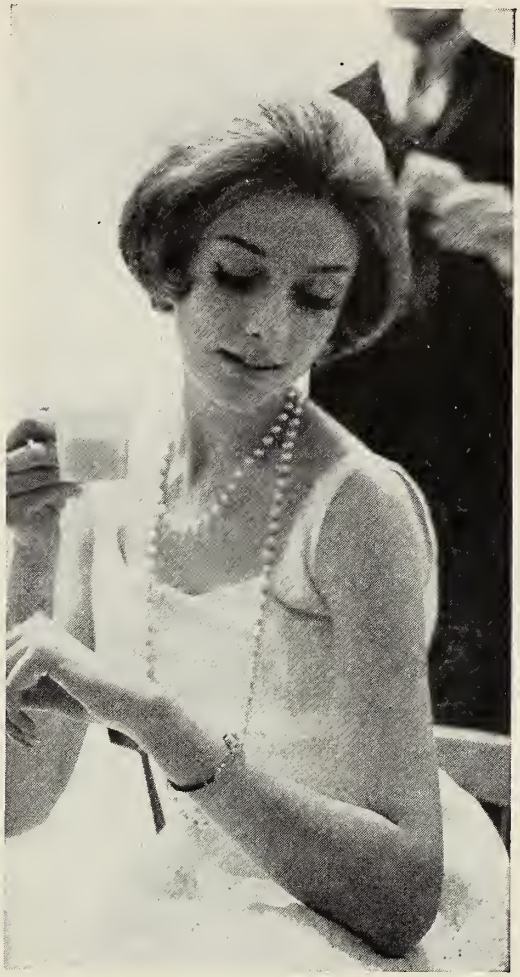
I would like to thank you again for inviting me to participate in your Annual Meeting of the Michigan State Medical Society. I can see why you are well known for your Michigan State Society hospitality.

Lloyd L. Brandborg, M.D.
Guest Essayist
San Francisco, California

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HIGHLIGHTS OF THE COUNCIL

Meetings of September 23 and 27, 1962

Seventy-eight items were considered by The Council at its two meetings held coincident with the MSMS Annual Session in Detroit. Chief in importance were:

- Financial report to August 31 was presented by Finance Committee Chairman W. W. Babcock, M.D., of Detroit who also presented paragraphs on MSMS finances for the Supplemental Annual Report of The Council to be presented to the House of Delegates; both reports were approved.
- The Publication Committee recommended that the present policy of publishing scientific material in JMSMS be continued and that increased attention be given to the various activities of the Michigan State Medical Society and its component societies, as well as to the various columns which presently are part of THE JOURNAL.
- The serious illness of Dr. Wilfrid Haughey, Editor of THE JOURNAL, was reported; a round robin letter from members of The Council was sent to Doctor Haughey, wishing him a speedy recovery.
- Michigan Crippled Children Commission Physicians' Fee Schedule. A letter from Donald C. Smith, M.D., Acting Director of MCCC, inviting MSMS to appoint two physicians to work in an advisory capacity on an MCCC committee to review its physicians' fee schedules was accepted and the Chairman was authorized to select two councilors.
- The medical staff of Oakwood Hospital requested clarification of recent rule of the Michigan Council of Health requiring laboratories to report on positive venereal disease tests. The communication was referred to the appropriate Reference Committee of the House of Delegates which will consider a resolution on this subject to be introduced at the 1962 Session.
- Retiring President O. K. Engelke, M.D., of Ann Arbor expressed his thanks and appreciation to every member of The Council for help and complete cooperation during his tenure. He expressed his great pleasure in working for organized medicine and complimented the MSMS staff which assisted him in carrying out his responsibilities. The President's remarks were greeted with applause.
- AMERF. President-Elect C. I. Owen, M.D., of Detroit reported on collections from Michigan to the American Medical Education and Research Foundation. The Council authorized an appeal for funds to AMERF, to be included in the President's Letter sent to all MSMS members.
- Speaker James J. Lightbody, M.D., of Detroit outlined plans for the smooth functioning of the 1962 House of Delegates; he advised that Harold F. Falls, M.D., due to pressure of his practice and other important commitments, found it necessary to resign as Vice-Speaker of the House. The Council extended thanks to Doctor Falls for his great service to the State Society.
- A survey of welfare fee schedules in all of Michigan's 83 counties, as developed by the MSMS Research Department, was studied by The Council. In the 83 counties, 43 now have adopted the 1959 Michigan Uniform Fee Schedule for Governmental Welfare Agencies.
- Representatives to Meetings:

  (a) Herbert A. Auer, coordinator of JMSMS, was authorized to attend the Medical Journal Conference, November 3-4;

  (b) Legal Counsel Lester P. Dodd was authorized to attend the AMA Medical-Legal symposium, March 8-9;

  (c) The Chairman of The Council and one staff member was authorized, at the discretion of the Chairman of the AMA Delegation, to attend the AMA Clinical Meeting, November 25-28;

  (d) Public Relations Counsel H. W. Brenneman was authorized to attend the Public Relations Society of America meeting, November 12-14.
- Commendation from AMA. Chairman McGillicuddy read a letter from the AMA acknowledging the devoted work of Michigan M.D.s who have served or are serving on AMA commissions and committees.
- Resignation. William Bromme, M.D., of Detroit forwarded to The Council a letter of resignation; the Secretary was requested to send a letter to Doctor Bromme (with copy to the Wayne County Medical Society) thanking him for his past service to Medicine.
- Proposed maintenance service for the MSMS Headquarters, as recommended by Advisor Kenneth H Johnson, M.D., was approved by The Council.
- Committee Reports. The following were given consideration:

  (a) Public Health Committee, meeting of May

(Continued on Page 1306)

BONADOXIN®
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1. Groskloss, H.H., Clancy, C.L., Healey, E.F., McCann, W.J., Maloney, F.D., Loritz, A.F.: Clinical Medicine (Sept.) 1955.

Study involving 287 patients. 261 patients experienced excellent to good results with Bonadoxin for relief of nausea and vomiting of pregnancy. No side effects reported.[1]

2. Albertson, H.A., Trout, Jr., H.H., Daily, F.W.: The American Journal of Surgery (Sept.) 1956.

"As a result of this study, it is our belief that the routine prophylactic use of the combination of meclizine hydrochloride and pyridoxine is a safe and effective method for lessening the incidence of postoperative nausea and vomiting. We are employing this preparation as a routine pre-operative medication."[2]

3. Goldsmith, J.W.: Minn. Med. (Feb.) 1957.

Study involving 620 patients, 537 patients experienced moderate to complete improvement of nausea and vomiting of pregnancy with Bonadoxin. Toxicity and intolerance to the medication in the dosage employed in these studies was zero.[3]

4. Codling, J.W.; Lowden, R.J.: Northwest Med. (March) 1958.

Study involving 76 pregnant patients with nausea and vomiting. The results indicated an overall response in 70 of 76 patients treated. No side reactions were observed in this clinical study.[4]

5. Bentley, M.D.: Journal of the Mich. State Med. Soc. (Sept.) 1959.

[Bonadoxin] "was found clinically effective in the prevention of pre-operative and post-operative nausea and emesis in 157 patients who underwent ocular surgery, while control drugs alone could not completely eliminate the symptoms. Bonadoxin did not cause side reactions in the preoperative or postoperative phase of this study."[5]

6. Bethea, R.C.: International Record of Med. (May) 1960.

"Our investigation of this drug indicates that in 88 per cent of the cases satisfactory relief of the distressing symptoms of early pregnancy was obtained without undesirable side effects, including sedation."[6]

7. Sklaroff, D.M.; Karayannis, N.: Current Therapeutic Research (June) 1962.

"Based on these results, indicating 92 per cent effectiveness, meclizine-pyridoxine (Bonadoxin®) may be considered a valuable compound in the control of post-irradiation nausea and vomiting. The preparation proved to be safe and fast-acting in bringing therapeutic relief to carcinoma patients with radiation sickness."[7]



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Highlights of The Council Meetings

(Continued from Page 1304)

23, reviewed the recommendations of all the scientific committees of the Society.

(b) Scientific Radio and Television Committee, July 18, reviewed the current program of medically-oriented scientific radio programs now carried by 36 radio stations in Michigan and 2 in Ohio; also plans for the 1962-63 season.

(c) Postgraduate Medical Education Committee, July 12, presented a report on the spring 1962 extramural postgraduate program, and on the proposed program for the 1962 autumn program.

(d) Medical Care Insurance Committee, July 18, covered the development of the Annual Report of the Committee, correspondence from Detroit Roentgen Ray and Radium Society, and the recommendation that a supplemental page be printed for the Michigan Uniform Fee Schedule for Governmental Welfare Agencies to clarify certain questions.

(e) 1963 Annual Session Program Committee, July 25, outlined the development of the assembly program for the Grand Rapids Annual Session of next September.

(f) 1963 Michigan Clinical Institute Program Committee, July 26, reviewed the television committee program as well as the platform program for clinical round table discussion groups and selection of topics and speakers for the 1963 Institute in Detroit.

(g) Ad Hoc Committee to Provide Medical Information to Political Parties, August 8, reported a discussion with the Administrative Assistant to Governor Swainson. The Committee's meeting of August 15 reviewed a discussion with a gubernatorial nominee.

(h) Committee to Study Establishment of Loan Fund for New Physicians, August 8, discussed the recommendations of the 1961 House of Delegates and the Committee's recommendation that each MSMS member be requested to submit any knowledge he may have regarding the need for a loan fund for physicians establishing a practice.

(i) Geriatrics Committee, August 9, discussed how to meet the rehabilitation needs of long-term patients, training programs for junior physical therapists, rehabilitation of chronic disease patients, and content of the May 1963 Number of THE JOURNAL to be dedicated to geriatrics.

(j) Ad Hoc Committee on Conferences on Health Care, August 9, reported on discussion with representatives of Michigan Hospital Association including possible cooperation in existing recruitment efforts, hospital licensing legislation, and other matters of mutual concern.

(k) Medical-Socio Economics Committee, August 15, reviewed the proposed draft of the Committee's Annual Report; also the Committee's commentary regarding the 45 recommendations in the final report of the Governor's Commission.

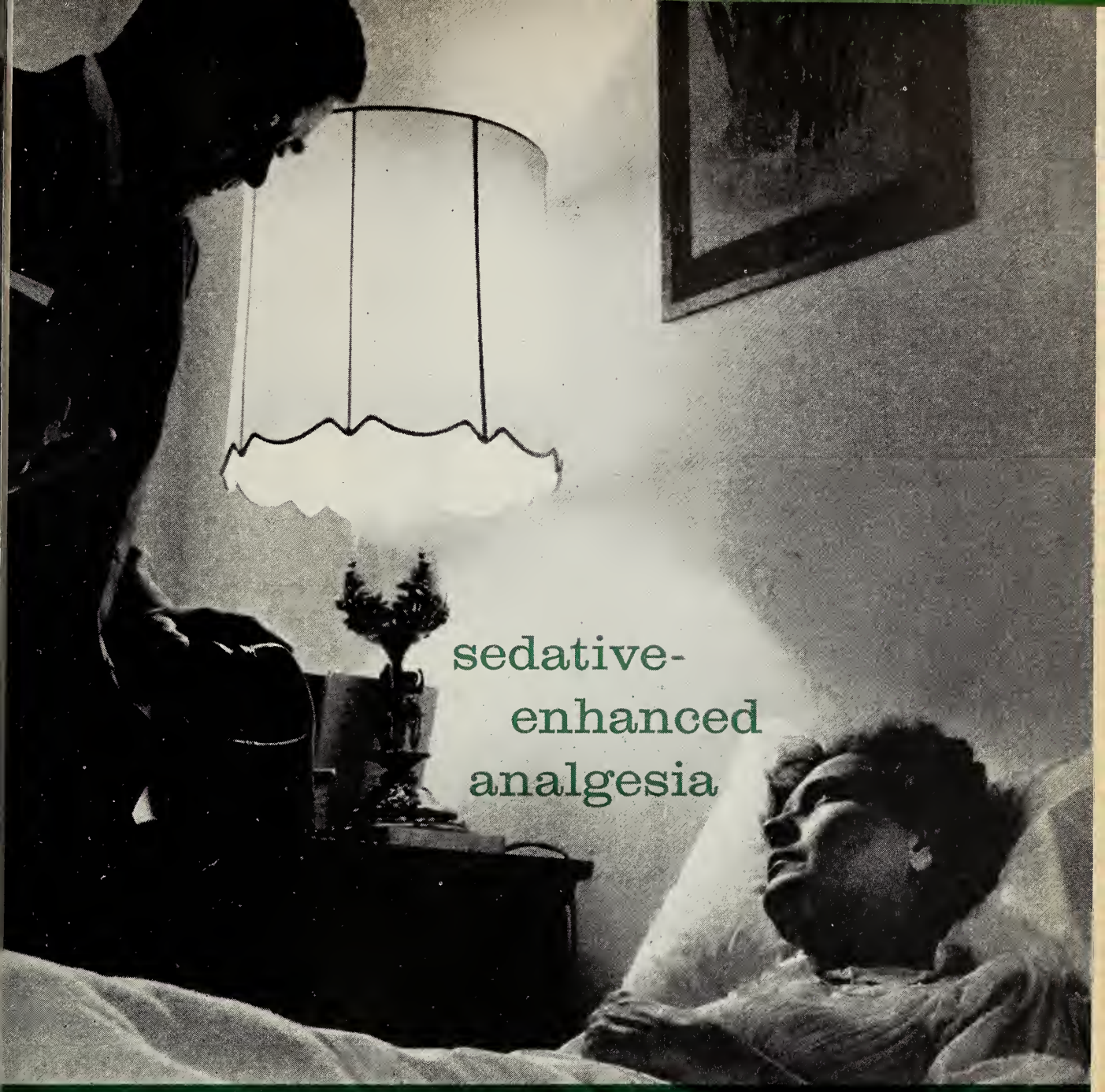
(l) The report of the Committee to Study Problems of Emergency Care in Hospitals, August 23, was personally presented by W. L. Brosius, M.D., of Detroit who gave the results of the Committee's survey and the proposed Supplemental Annual Report of the Committee. Doctor Brosius was thanked for his attendance and excellent report.

(m) State Fair Committee, June 6, and July 25, developed the 1962 State Fair Exhibit, and discussed the possibility of a health fair in Michigan in the future.

(n) Michigan Cancer Coordinating Committee, May 17 (not an MSMS Committee but one to which MSMS sends representatives): the Committee discussed the cancer quackery bill, the Michigan Cancer Coordinating Committee Lecture at the 1963 Michigan Clinical Institute, the possibility of a Michigan Quackery Congress, and organizational activities.

- Legal Counsel Lester P. Dodd presented opinions covering the legal aspects of drawing blood alcohols; outlining the responsibilities of a county medical society ethics committee; on conference re rules and regulations pertaining to control of venereal diseases; on advice given in a professional liability matter; and a review and general outline of the statutes which govern the powers and duties of the State Commissioner of Health.
- The Executive Director reported that staff had covered 18 committee meetings since July 20; that the MSMS Annual Session had taken the major time of the entire personnel during the past two months (170 form letters and innumerable individual communications were necessary to work up this Session); recent mailings included use of the addressagraph for 88,197 impressions. Lansing Sparrow Hospital, celebrating its 50th Anniversary on November 12, wishes to borrow the Dean Cornwell painting of "Beaumont and St. Martin" for display in a prominent window of a Lansing department store, which was authorized by The Council.
- Public Relations Counsel H. W. Brenneman's report included statistics on State Fair attendance at MSMS exhibit; operation of Kerr-Mills Act in Detroit; work on "Get Out the Vote" campaign; publicity re MSMS Annual Session; and various news releases on important MSMS activities during last 60 days.
- The Supplemental Annual Reports of The Council were drafted and referred to the House of Delegates

(Continued on Page 1308)



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1. Meyers, G. B.: Ind. Med. & Surg. 26:3, 1957. 2. Murray, R. J.: N. Y. St. J. Med. 53:1867, 1953.

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Highlights of The Council Meetings

(Continued from Page 1306)

with authority given the Council Chairman to indicate those committee reports not acted upon by The Council.

- Matters of mutual interest with Michigan Medical Service were discussed with MMS President Sidney Adler, M.D., and Executive Director Sumner Whittier.
- (a) Matters of mutual interest were discussed with State Health Commissioner A. E. Heustis, M.D., including reporting of positive laboratory tests done in conjunction with the diagnosis of venereal disease: 246 of the 284 registered laboratories are reporting in accordance to the recently amended regulation and the Michigan Department of Health is continuing to work with hospitals and laboratories to bring about 100 per cent reporting;

  (b) Hospital Licensing Bill. The State Health Commissioner is working on the preparation of this bill and invited the cooperation of the MSMS Council in this endeavor.

  (c) The Northern Michigan Tuberculosis Sanatorium at Gaylord, now down to 19 tuberculosis patients (and 147 mental patients) will be gradually closed out as a TB hospital and be transferred to the Department of Mental Health.

  (d) Tetanus immunization. The Council of Health had approved a policy on tetanus immunization as recommended by the MSMS Occupational Health Committee and approved by the Council.

  (e) Drug Legislation. The Governor has appointed the State Health Commissioner as a member of a committee to review the drug laws to see what if anything should be done to control the intra-state use of dangerous drugs.
- At the Second Session of The Council (September 27), the newly elected Officers and Councilors were introduced: Orlen J. Johnson, M.D., of Bay City, President-Elect; D. W. McLean, M.D., Detroit, Councilor of the First District; A. C. Stander, M.D., Saginaw, Councilor of the Eighth District; D. A. Bowman, M.D., of Bay City, Councilor of the Ninth District; and J. W. Rice, M.D., of Jackson, Vice Speaker of the House of Delegates.
- Reorganization of The Council. (1) O. B. McGillicuddy, M.D., of Lansing was re-elected as Chairman of The Council;

  (2) H. H. Hiscock, M.D., of Flint, was selected as Vice Chairman of The Council;

  (3) Robert J. Mason, M.D., of Birmingham was continued as Chairman of the County Societies Committee;

  (4) W. W. Babcock, M.D., Detroit was re-elected Chairman of the Finance Committee;

  (5) William A. Scott, M.D., of Kalamazoo again was selected as Chairman of the Publication Committee.
- Matters referred to The Council by the 1962 House of Delegates were reported unofficially by Speaker Lightbody who stated that a detailed report would be presented at the November 14 meeting of The Council.
- An official vote of recognition and thanks to retiring Officers and Councilors for contributions over the years was entered in the minutes of The Council, as well as thanks to all who helped make the 1962 Annual Session an outstanding success.
- The Council Session ended with a briefing period for new Councilors who met with Chairman McGillicuddy and other Officers for a brief introduction to their new responsibilities.

Yamasaki To Design New NYC Port Area

Minoru Yamasaki, architect of the MSMS Headquarters, has started work on what will be his biggest undertaking. He has bees given the assignment to transform 15 acres of New York City's lower Manhattan, on the west side along the Hudson River just north of the Battery, into an "Oasis of Beauty."

The 370 million-dollar project will feature buildings with graceful columns and arches, magnificent fountains and gardens, and a grand entrance surpassing Rockefeller Center. The New York Foreign Trade Center Authority considered many architects, then narrowed the field to ten, and then invited Yamasaki to handle the tremendous task. Yamasaki reports that he is still a bit "bowled over" by the selection.

Review Accomplishments Of Michigan Blue Plans

The medical profession in Michigan and Michigan Blue Shield have an outstanding record of service to the aged. The history of this service dates back to 1940.

Here are some of the pertinent facts:

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Blue Cross-Blue Shield reduced the size of qualification for group coverage from 10 persons to five.

Blue Cross-Blue Shield made it possible for those in groups with formal pension programs to continue

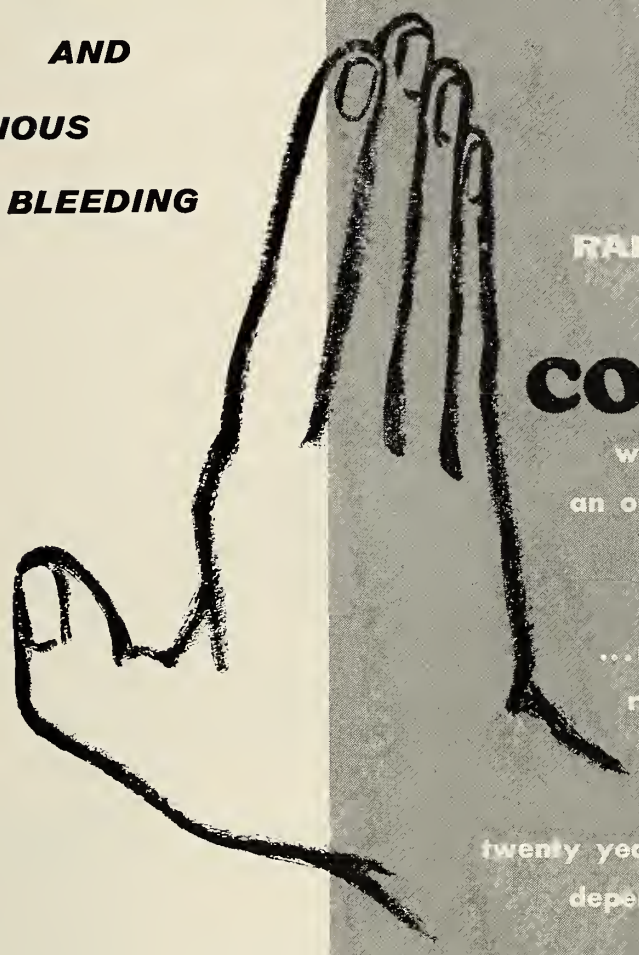
(Continued on Page 1310)

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Reviews Accomplishments of Michigan Blue Plans

(Continued from Page 1308)

group benefits at group rates by deduction of the monthly rate from the pension check.

Blue Cross-Blue Shield offered non-group coverage statewide in 1951 for those not eligible for a group. Although a subscriber had to be under 65 at the time of enrollment, he could continue regardless of age once enrolled.

In 1959, a special senior non-group program was offered for those over 65 at the time of enrollment.

In 1961, benefits of group conversion, regardless of age, were made the same as the basic group coverage.

Blue Cross-Blue Shield cover applicants regardless of health condition without physical examination or health statement, including many who cannot obtain coverage under individual enrollment in commercial programs. No one is ever cancelled because of health conditions or frequency of use of coverage.

Sumner G. Whittier, executive director of Blue Shield, reports that Blue Cross and Blue Shield dominate coverage of the aged in Michigan.

"Blue Cross-Blue Shield currently cover 38 per cent of all persons in Michigan age 65 and over," he said. "That compares to only about 12 per cent covered by commercial carriers."

He said that Blue-Cross-Blue Shield coverage of the aged in Michigan totals 250,000. Here is the breakdown:

1. Some 200,000, representing 80 per cent, have regular group benefits. Of these, 150,000 have group rates and group benefits through pension retiree programs and the remaining 50,000 have group benefits through group conversion at slightly higher rates.

2. Another 50,000, representing 20 per cent, have non-group (individual enrollment) coverage. Some 32,000 are covered through regular non-group, having enrolled before they reached age 65. About 18,000 have coverage through the existing special senior contract offered in 1959.

Mr. Whittier stressed that the medical profession and Blue Shield gave top priority to cooperating in such programs for coverage of the aged.

He pointed out that Blue Shield senior citizen programs are literally subsidized by the doctors who accept the lowest fees in the Blue Shield schedule. The lower a subscriber's income, the less the doctor takes in fees for medical and surgical care.

"Because many of the elderly have incomes under $2,500, the Blue Shield participating doctors receive and accept the lowest fees scheduled," Mr. Whittier said.

Mr. Whittier also indicated that only one-third of the cost was for medical bills and two-thirds was for hospital bills. He pointed out that doctors' fees were not a major factor in rising costs because Blue Shield had permitted doctors only one general increase in fees in all the 23 years of its history.

Welcome, New Members!

The following new members are enthusiastically welcomed into the Michigan State Medical Society. In some cases, the specialties for the doctors were not given and thus cannot be reported below:

Jules Altman, M.D.
14633 E. Seven Mile Rd.
Detroit 5, Michigan
(Dermatology)

William B. Anderson, Jr., M.D.
Edward W. Sparrow Hospital
Lansing, Michigan

Norman L. Barr, M.D.
30000 Mound Road
Warren, Michigan
(Cardiovascular Diseases)

Robert A. Barron, M.D.
32749 Franklin Road
Franklin Village, Michigan

Robert J. Baruch, M.D.
Wayne County General Hospital
Eloise, Michigan

Sidney Baskin, M.D.
19207 Schaefer Rd.
Detroit 35, Michigan
(Internal Medicine)

Hugh Beckman, M.D.
20001 Greenfield
Detroit 35, Michigan
(Ophthalmology)

James E. Butler, M.D.
2177 W. Grand Blvd.
Detroit 8, Michigan

George H. Cameron, M.D.
15120 Michigan Ave.
Dearborn, Michigan
(Dermatology)

Luis M. Charbonier, M.D.
1840 Holbrook
Detroit 12, Michigan

Max D. Clark, M.D.
Henry Ford Hospital
Detroit 2, Michigan
(Roentgenology-Radiology)

Forrest C. Clore, M.D.
Edward W. Sparrow Hospital
Lansing, Michigan

Cory E. Cookingham, M.D.
208 Medical Arts Building
Flint, Michigan
(Allergy and Pediatrics)

J. C. Decker. M.D.
Grant, Michigan
(General Practice)

Bernard Eisenstein, M.D.
771 Fisher Building
Detroit 2, Michigan

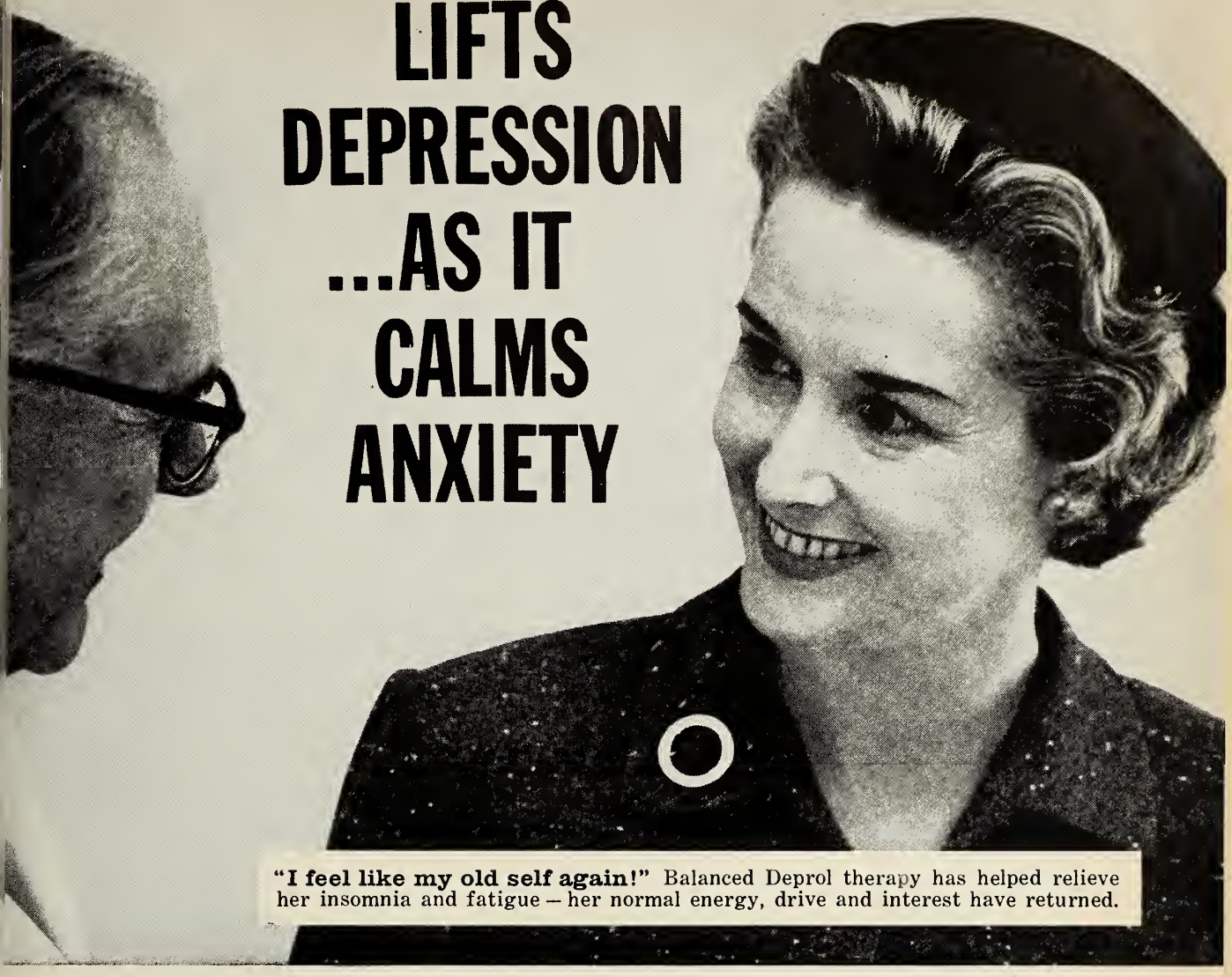
William R. Fulgenzi, M.D.
1305 Kales Building
Detroit 26, Michigan
(Orthopedic Surgery)

John A. Fushman, M.D.
4200 N. Woodward Ave.
Royal Oak, Michigan
(Otology, Laryngology, Rhinology)

Frank W. Garber, Jr., M.D.
Hackley Union Bldg.
Muskegon, Michigan
(Orthopedic Surgery)

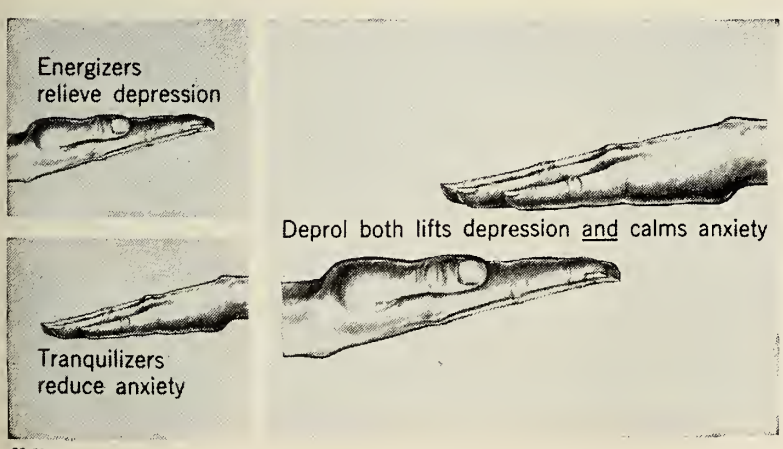
(Continued on Page 1312)

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(Continued from Page 1310)

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1180 Southfield Plaza
Southfield, Michigan
James A. Greene, Jr., M.D.
2507 Geddes Ave.
Ann Arbor, Michigan
(Internal Medicine)
Sami F. Guindi, M.D.
1080 Fisher Building
Detroit 2, Michigan
Jose P. Gurri, M.D.
North Detroit General Hospital
Detroit 12, Michigan

Otto H. Hahne, M.D.
Herman Kiefer Hospital
Detroit 2, Michigan
Paul Halick, M.D.
Edward W. Sparrow Hospital
Lansing, Michigan
Gerard R. Hassett, M.D.
St. Mary's Hospital
Livonia, Michigan
Dewey R. Heetderks, Jr., M.D.
1724 Covington Dr.
Ann Arbor, Michigan
Christian Helmus, M.D.
203 Paris Avenue, S.E.
Grand Rapids 3, Michigan
(Otology, Laryngology, Rhinology)
Joseph W. Hess, M.D.
Harper Hospital
Detroit 1, Michigan
(Resident in Urology)

Lillian L. Imperi, M.D.
13128 Wales
Huntington Woods, Michigan
(Psychiatry)

Herbert C. Johnston, M.D.
3001 Miller Rd.
Dearborn, Michigan
Ramon R. Joseph, M.D.
Wayne County General Hospital
Eloise, Michigan

Francis J. Kenney, Jr., M.D.
University Hospital
Ann Arbor, Michigan
(Resident in Thoracic Surgery)
(Internal Medicine)
George A. Kling, M.D.
Harper Hospital
Detroit 1, Michigan
James G. Kornmesser, M.D.
23603 Farmington Road
Farmington, Michigan
(Obstetrics-Gynecology)
John A. Kremski, M.D.
Midland Hospital
Midland, Michigan
(Pathology)
Don R. Krohn, M.D.
23603 Farmington Road
Farmington, Michigan
(Obstetrics-Gynecology)

Frank F. Lawand, M.D.
32377 Hazelwood
Wayne, Michigan
(Thoracic Surgery)
Lien-Fu Lo, M.D.
1800 Tuxedo
Detroit 6, Michigan
James R. Lloyd, M.D.
1515 David Whitney Bldg.
Detroit 26, Michigan
Reuben Lopatin, M.D.
1800 Tuxedo
Detroit 6, Michigan
(Internal Medicine)

Biresh C. Mahanti, M.D.
2331 Van Alstyne
Wyandotte, Michigan

Barukh L. Nevorah, M.D.
Detroit Receiving Hospital
Detroit 36, Michigan
(Dermatology)
Peter F. Nowosielski, M.D.
15256 Levan Rd.
Livonia, Michigan
(Obstetrics-Gynecology)

Elva O. Poznanski, M.D.
26789 Woodward Ave.
Huntington Woods, Michigan
(Child Psychiatry)

Donald R. Quigley, M.D.
Edward W. Sparrow Hospital
Lansing, Michigan

Antonio E. Ramos, M.D.
1800 Tuxedo
Detroit 6, Michigan
D. S. Rao, M.D.
St. Lawrence Hospital
Lansing, Michigan
Daniel L. Reed, M.D.
2310 Fernwood
Ann Arbor, Michigan
Melvin L. Reed, M.D.
Henry Ford Hospital
Detroit 2, Michigan
(Oncology)
Emiliano Rivera, Jr., M.D.
1800 Tuxedo
Detroit 6, Michigan
(Internal Medicine)
O. Paul Rosbolt, Jr., M.D.
8505 Plymouth Rd.
Detroit 4, Michigan
Oscar A. Ross, M.D.
1800 Tuxedo
Detroit 6, Michigan
Luis C. Ruiz, M.D.
35084 Chestnut
Wayne, Michigan

Enrique Sabbagh, M.D.
2605 W. Grand Blvd.
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(Plastic Surgery)

Ivan C. Schatten, M.D.
2201 E. Jefferson Ave.
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Irwin J. Schatz, M.D.
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Detroit 2, Michigan
(Cardiovascular Diseases)
Klaus P. Schmidt, M.D.
871 Fisher Building
Detroit 2, Michigan
Ezra S. Shaya, M.D.
25210 Grand River
Detroit 40, Michigan
J. Bernard Sloan, M.D.
1001 Island Dr., Apt. 104
Ann Arbor, Michigan
Donald C. Smith, M.D.
3047 School of Public Health
University of Michigan
Ann Arbor, Michigan
(Professor, Public Health)
Stanko Stanisavljevic, M.D.
2338 Woodward Ave.
Royal Oak, Michigan
(Orthopedic Surgery)
George H. Steele, M.D.
18430 Mack
Detroit 24, Michigan
(Obstetrics-Gynecology)
William P. Steffee, M.D.
402 Center Street
North Muskegon, Michigan
Jerome W. Swan, M.D.
26 Sheldon Avenue, S.E.
Grand Rapids 2, Michigan
(Ophthalmology)

George T. C. Tseng, M.D.
Annapolis Hospital
Wayne, Michigan
(Anesthesiology)
Edward T. Turner, M.D.
5050 Joy Rd.
Detroit 4, Michigan

James D. Van Brocklin, M.D.
1048 Morningside Dr.
Ann Arbor, Michigan
(Physical Medicine)
John H. van de Leuv, M.D.
91 S. Washington St.
Oxford, Michigan

John S. Walker, M.D.
301 Henrietta St.
Kalamazoo, Michigan
(General Practitioner)
Laurence C. Wegienka, M.D.
2200 Fuller, Apt. 214
Ann Arbor, Michigan
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Harry O. Westphal, M.D.
122 Townsend
Midland, Michigan
(Dermatology)
Norvil Wyche, M.D.
525 Visger Rd.
Ecorse, Michigan

Suggests Four Goals For County Societies

By Jack Schreiber, M.D.

Mahoning County Medical Society, Ohio

(This address was given at the AMA Institute in Chicago for county and state society officials)



For the past year or so, organized medicine has been on the defensive. But now that the King-Anderson bill has been defeated, doctors can begin to act instead of react. We've been on the defensive because of the need to answer charges leveled against the profession. Charges which have for the most part been unwarranted—yet nevertheless based on some deficiency.

Perhaps the deficiency arises from the fact that in general we doctors have been too preoccupied with the narrowness of the practice of medicine. We have failed a little in that we have not paused long enough to fulfill the rest of our sacred obligation in the service of mankind.

That obligation includes being a good citizen among other things. It also includes a very distinct response to the needs of the community from which we earn our way of life.

It would seem to me that as we take stock of the proper role of the organized unit of modern medicine on a local level—the county medical society—we come always, full circle, to the realization that service is the basic foundation upon which we can rebuild the public confidence and merit the respect once held so highly by the profession.

How can the county medical society serve the community?

I would suggest four areas: (1) Providing, (2) Informing, (3) Educating, and (4) Guiding.

And now permit me to discuss each of them briefly.

There are at least three services that the county society should provide: (1) Emergency call system, (2) Grievance committees, and (3) Guarantee of care to everyone.

As far as informing is concerned, we should give the people the straight facts. These fall into two activities primarily—Press relations and Radio and Television.

As we consider the educating function, they say that people are eager to learn, so what better teacher than the doctor? Two natural county society activities here are the Speakers Bureaus on health, food fads, quack, legislation, etc., and also Radio and Television Shows.

There are two major ways that county societies might approach the responsibility of guiding:

1. Public Service Projects.—County fair exhibits, medical disaster preparedness, working with community groups, etc.

2. Insurance Committee.—A County Medical Society, under the guidance, and supervision of the AMA and the state medical so-

cieties, can work with local and state insurance agencies to prepare booklets, pamphlets, or brochures on health insurance.

We've been given a brief respite in the struggle for the preservation of free enterprise in medical care. In the overall picture we are in reality struggling with others to preserve, protect and defend the basic freedom given to us as a heritage by those who broke their hearts to get it—and who died in many cases to keep it.

Whether it is justified or not, the AMA, the county medical society, and the individual doctor is on trial.

This is a trial testing whether or not American medicine can meet the challenge of the jet age. The challenge is, are we good enough, worthy enough to deserve free enterprise.

One of the most effective methods of meeting our challenge is to render even greater service to the local community. This has been outlined. But no project, no worthwhile committee, no activity, will ultimately succeed unless we tell the people what we are doing. We must utilize every possible means of communication available to tell the story of medicine to the people. This could well be the watchword—tell the story of medicine—the scientific; the political; the social; the economic; the cultural chapters of the exciting story of medicine.

We must meet the challenge if we are to remain free. We must improve the public image of organized medicine. This we can do most effectively by honest, sincere, dedicated service to our patients and to the community. For it is the people of this land who will ultimately decide our fate. These same people are also the loyal, devoted patients of the fine doctors of this country. The challenge is, therefore, not so much that of the AMA, but rather that of the practicing physician, working through his county medical society.

Let's all tell the story of medicine. The hour is late, and the candle of freedom burns low.

Wayne Society Hears Views About Care for the Aged

Physicians and dentists respectfully listened to other authorities talk about health care at a Wayne County Medical Society meeting in October.

Ralph Cooper, M.D., Wayne County Medical Society President, said, "We recognize that the U. S. Senate is—and it appears will continue in the next Congress to be—heavily controlled by the Democratic Party. We recognize also that it has rejected the Social Security approach to medical care for the aged.

"It appeared wise then for us to invite spokesmen from government, hospitals, labor and voluntary health insurance to advise with us as to the best method of seeking a newer and sound approach to health care problems."

Representing hospitals was Kenneth B. Babcock, M.D., Director of the Joint Commission on Accreditation of Hospitals of Chicago, Illinois, who urged (1) hospital affiliation with chronic, convalescent and skilled nursing homes; (2) adequate hospital psychiatric units; (3) de-emphasis of specialty hospital; and (4) better community hospital planning.

Sidney Adler, M.D., President of Michigan Medical Service (Blue Shield), called for cooperation in "best and most quickly distributed health care to the greatest number" of Americans.

"Thirty-eight per cent of Michigan's senior citizens are now protected by broad Blue Cross-Blue Shield coverage," said Dr. Adler. "Let government fill in where it can best help by supplementing with such programs as Hill-Burton (hospital construction) and Kerr-Mills (medical aid to the aged state programs).

Wilbur J. Cohen, Assistant Secretary of Health, Education and Welfare, pointed up some of the activities of that sprawling federal agency in seeking ways to better utilize the existing health facilities of the Nation. Mr. Cohen said HEW is assisting the States in implementing the Kerr-Mills Act (Michigan was the first State to put this law into effect) and added that "we would like" to see health care for the aged added to his giant agency (thus endorsing the controversial political measure turned down by the 1962 Congress).

James Brindle, Director of the Social Security Department of the United Automobile Workers, pointed out that collective bargaining has done much to encourage the development of voluntary health insurance. He stated that unions have favored broadening and extending both Blue Cross and Blue Shield, and described the Michigan Blue Plans as among the best in the Nation. Mr. Brindle said Labor believes that to preserve the voluntary system in the United States selective government financing is necessary.

Muskegon County Bulletin Begins Historical Series

The first installment of "The History of the Muskegon County Medical Society" appeared in the September issue of that county's "Bulletin."

Commenting on the early history of the Muskegon area—Indians, missionaries, fur traders—the article tells about Charles P. McSherry, M.D., the first physician to arrive in Muskegon in 1849. "His most prevalent diseases were malaria, ague, diphtheria, and smallpox besides the many industrial accidents in the lumber mills." The historical series is being written

(Continued on Page 1318)

Why did 1,094 doctors order PRESTO Air Humidifiers last winter?

In December, 1961, a professional discount on the purchase of Presto Humidifiers was offered to physicians.* In addition to the obvious savings involved, there are these significant facts: **1.** Presto effectively adds needed moisture to dry, heated air. Discomforts of nose and throat due to below normal humidity are reduced. **2.** The unit is readily portable (stand optional at extra cost), plugs into any 115v A.C. outlet. Operation is simple, quiet, trouble-free. **3.** Tank (5-gal. capacity), cabinet and grill are rustproof; cabinetmaker styling harmonizes with home or office furnishings. **4.** New on Presto's 1962 model Humidifiers—a Humidistat Control maintains desired humidity setting automatically. Presto Air Humidifiers are available for patient use through retail outlets everywhere.

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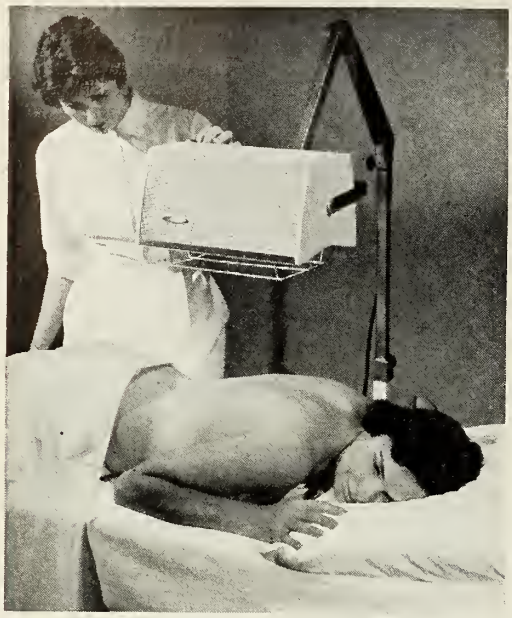
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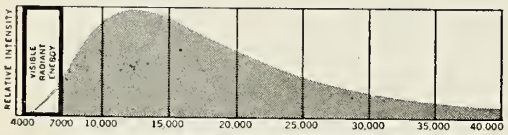
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Muskegon County Bulletin Begins Historical Series

(Continued from Page 1316)

by William F. LeFevre, M.D., long-time MSMS Councilor from Muskegon.

Ingham Continues TV Series

The Ingham County Medical Society continues its monthly television program over WJIM-TV, Lansing station. Various members of the county society serve as moderators and others serve as panel participants. Among recent subjects covered by the Ingham doctors were "Athletic Injuries," "Hospital Emergency Rooms," and "Respiratory Emergencies."

Berrien Society Hosts Lawyers

Members of the Berrien County Bar presented a program recently about the new Michigan legislation permitting professional men to incorporate at a meeting of the Berrien County Medical Society. It is reported that the lawyers advised against incorporation for moral and practical reasons. The Berrien County Medical Society was host for the joint meeting.

Oakland Society Library Started

The development of a library is one of the new special projects of the Oakland County Medical Society. The Oakland Society board recently approved the plan as outlined by Hazen L. Miller, M.D., library committee chairman. An allocation has been made for the purchase of books.

Average Prescription Costs Only $3.26

The average charge for a drug prescription in 1961 was $3.26, an analysis of 149,438 prescriptions filled that year.

A survey, described in a market research report from Abbott Laboratories, also showed that 84.8 per cent of the prescriptions cost $5 or less. It also showed that 96 per cent of the prescriptions were compounded and dispensed as manufactured, with 4 per cent requiring measuring and mixing before being dispensed.

MSMS Radio Series Reaching More People

PUBLIC RELATIONS 1319



The series of radio broadcasts by Michigan State Medical Society through the facilities of WOUM of Ann Arbor is continuing weekly to help tell the story of medicine to the Michigan citizens.

Each week doctors of medicine, selected by the MSMS Scientific Radio and Television Committee, present a 15-minute radio program at the WOUM studios on the University of Michigan Campus.

The tape then is sent to 38 other radio stations. These include 36 in Michigan along with two in Ohio.

"Many county medical societies have helped us to interest more stations in this excellent public-health radio service," points out H. A. Towsley, M.D., Committee Chairman.

During the past year, 16 stations joined the "network" to use the MSMS tapes each week. This increase of 16 stations in 12 months represents the greatest gain in recent years.

Other county societies willing to invite their radio station managers to carry the series are asked to get in touch with the MSMS Headquarters for assistance.

"The Michigan State Medical Society is indeed indebted to the University of Michigan for the valuable cooperation given in this project," declared Clarence I. Owen, M.D., MSMS president. "The University, I understand, not only uses its facilities for this project, but its staff members are very helpful in the planning and production of the high-level programs," he added.

The Society presented a citation of appreciation to WUOM several years ago, acknowledging their contributions.

Doctor Owen also expressed the thanks of MSMS to the 38 stations which carry the program. "All of this time is given each week without charge and as a vital public service venture," he stressed.

In an effort to improve this project, MSMS this year presented the weekly programs throughout the summer. In the past, the series was discontinued for the summer. Subjects were selected this past summer that were especially pertinent during the summer months.

"The program is produced specifically for the general public," explains Doctor Towsley. The subject matter is not technical and doctors are selected for the show who have the ability to translate medical subject matter into easily-understood every-day language.

At the last meeting of the Committee, it was decided to use more provocative titles for the radio programs rather than titles of a formal scientific nature. "The titles should help to whet the appetite of the lay audience to listen," explains Doctor Towsley.

Questions are always welcomed from the listening audience and these help to build future program material.

Tapes from the broadcasts are filed in the MSMS Public Relations

Library and are available to members to use at public meetings, etc. Copies of the scripts also are on file at the Public Relations Library and are used in various ways by MSMS members.

The Committee has a long list of program possibilities to consider for future radio shows. Included among the subjects under consideration are the following: diets, obesity, birth defects, social drinking, seat belts, drug reactions, population explosion and others.

In addition to providing information about such subjects to the general public through Michigan radio stations, the speakers often are interviewed also by the University of Michigan News Service. Highlights of the radio talks then are reorganized into releases and sent to the many newspapers in Michigan. Further coverage is obtained through this important secondary approach.

Following is a list of stations currently carrying the MSMS public information radio programs:

WAGN	Menominee
WCAR	Detroit
WDET	Wayne State University
WHAK	Rogers City
WMAB	Detroit
WLDM	Munising
WMRP	Flint
WMTE	Manistee
WTAC	Flint
WMRT	Lansing
WKZO	Kalamazoo
WFRS	Big Rapids-Ferris Institute
WABX	Detroit
WMHE	Toledo
WORS	Detroit
WELL	Battle Creek
WIOS	Tawas City
WOAP	Owosso
WSJM	St. Joseph
WATT	Cadillac
WGRD	Grand Rapids
WHLS	Port Huron
WOWE	Allegan
WLEW	Bad Axe
WJEF	Grand Rapids
WLAV	Grand Rapids
WHMI	Howell
WOAK	Royal Oak
WOUB	Athens—Ohio University
WKLW	Grand Rapids
WMIC	St. Helen
WDMC	Otsego
WMBN	Petoskey
WJBK	Detroit
WUOM	Ann Arbor
WVGR	Grand Rapids—Ann Arbor Station
WKAR	East Lansing—M.S.U.
WHRV	Ann Arbor

Advances Spectacular In Medical Science

In the last 20 years, medial science has been making spectacular progress:

- Today, low cost vaccines offer protection against much serious illness.
- Today, danger of infection through surgery has been greatly reduced.
- Today, the average stay in a hospital for an appendectomy is five and one-half days; it was 14 days 20 years ago.
- Today, regular medical exams and early treatment prevent disease and disability in thousands of patients.
- Today, thousands leave hospitals well who would have died twenty years ago.
- Today, new antibiotic drugs prevent pneumonia that used to kill one in every three or four persons attacked.
- Also, as a result of medical science . . . today, the length of time a person is ill or hospitalized is much less than 20 years ago.

Says Drug Protection Facts "Badly Distorted"

E. Gifford Upjohn, M.D., Kalamazoo, chairman of the board of The Upjohn Company, told the 64th annual convention of the National Association of Retail Druggists in New York that a picture of irresponsible physicians and drug companies foisting dangerous drugs on an innocent public, while authorities stand helplessly by, has been created in some quarters. This picture, Doctor Upjohn added, is "badly distorted." It is not supported by the facts, stressed Doctor Upjohn, who reviewed in detail the various steps involved in evaluating new drugs.

A revision of the Food and Drug Act, last changed in 1938, "is in order," he asserted. "Just what changes are necessary or desirable, however, has been the subject of debate."

There are some serious gaps in pharmaceutical knowledge and some unpredictable hazards connected with the clinical evaluation of new drugs no matter how much care and skill are used to prevent them, he admitted. "There is no way to tell the effects of any drug on human beings except to give it to human beings," Doctor Upjohn declared.

Responsible members of the drug industry have been concerned for many years with eliminating these deficiencies and improving the quality of drug testing —through their own scientific staffs and through grants to independent researchers, he added.

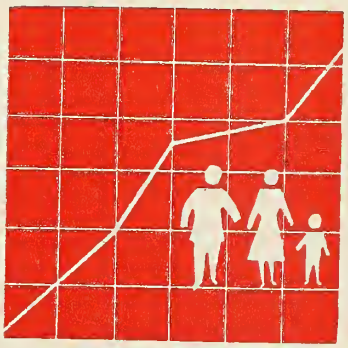
Health Insurance Coverage Climbs

In the space of 20 years, the number of people protected by health insurance has gone from one out of every eight in the United States to the present figure of three out of every four persons, the Health Insurance Institute reveals.

In 1941, 12 per cent of the U. S. civilian population was protected by some form of health insurance, the Institute said, while at the beginning of this year 74 per cent of Americans were so covered. At the midway point, 1951, some 56 per cent of the population had health insurance.

Twenty years ago, only 16 million Americans were covered by hospital expense insurance. Since then there has been an 8-fold increase and over 135 million persons were protected against the costs of hospital care at year-end 1961, declared the Institute. In 1951, over 85 million were insured.

The Institute said this explosive growth can be attributed to many factors, among which is the public's growing awareness of the value of modern health care and its need to find a mechanism to help prepay the costs of such care. The same type of growth has been shown, said the Institute, by other forms of health insurance.



From the Press:

Aged-Care Plan to Be Discussed

(Battle Creek Enquirer and News, October 10, 1962)

Representatives of a dozen insurance companies doing business in Michigan will meet in Battle Creek tomorrow to discuss the possibilities of creating a new health insurance plan for older persons.

State Insurance Commissioner Sherwood Colburn is encouraging the move, according to a story in the Detroit News today.

Similar plans are in effect in Connecticut, New York and Massachusetts. Such a plan would compete with the Blue Cross-Blue Shield programs of prepaid medical insurance, the paper said.

Mr. Colburn asked John Panchuk, general counsel for the Federal Life and Casualty Co. and the Wolverine Insurance Co., to organize the meeting and preside. The meeting will be held in the Tower Group's offices here at 11 a.m. Mr. Panchuk was out of the city today but the Enquirer and News was informed that the companies' representatives would discuss the plan to determine whether they would favor organizing and pooling their resources behind the plan.

Any such plan would require special action by the Legislature to exempt it from federal anti-trust laws, and could not become effective for many months.

As conceived by Colburn, it was said, the plan would parallel a recently devised policy in Connecticut. Thirty-two insured firms conduct that plan, with risks and expenses being assigned in proportion to each company's size. In its first year of operation the Connecticut plan is losing money.

Under that plan, anyone 65 or older may join. Their husbands and

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Whatever happened to handkerchiefs?



Remember when handkerchiefs were used for stuffy or runny noses? *That was before Naldecon.* Naldecon lets your head-cold patient breathe the way he should. Through the nose. Honest relief that lasts up to 8 hours with one sustained-action tablet. (When you need it, even *half* a tablet retains the sustained-action feature.) The counterbalance between *two* antihistamines and *two* decongestants* usually gives excellent results—seldom causes overstimulation or sedation. Keep handkerchiefs for showing. Prescribe Naldecon.

*Each tablet contains phenylephrine HCl 10 mg., phenylpropanolamine HCl 40 mg., phenyltoloxamine citrate 15 mg., chlorpheniramine maleate 5 mg.—half in the outer layer, half in the sustained-action core. Each teaspoonful (5 cc.) of Naldecon Syrup contains the equivalent of one-half tablet.

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Aged-Care Plan to Be Discussed

(Continued from Page 1323)

wives may be included if they are 55 or older and not working more than 30 hours a week.

Four options are offered:

1. For $10 a month, a subscriber can receive up to $10,000 in benefits during his lifetime, with up to $5,000 in any one year.

2. For $7.50 a month, members can get up to $5,000 with a maximum of $2,500 in any year.

3. For $17 a month, members can get the No. 1 plan plus basic hospital and surgical benefits.

4. For $14.50 a month, a subscriber gets the No. 2 plan plus basic hospital and surgical benefits.

Plans 3 and 4 include up to $12 a day for hospital bills, with a maximum 31 days a year, other hospital expenses up to $125 a year and a maximum surgical benefit of $360 in any one year.

Subscribers are canceled from the program after they have collected their maximum benefits.

Colburn said there is "an urgent need in Michigan for some kind of plan for senior citizens," adding that he is disappointed by the "complete lack of activity by Blue Cross-Blue Shield" since Sept. 12.

At that time Colburn rejected the second of two new health plans for the elderly proposed by the doctor operated program. He said the costs were "prohibitive" for the plan would be illegal in Michigan. He turned down an earlier plan because he said it was discriminatory.

"This (the meeting tomorrow) will be strictly a preliminary discussion. . . . It is very doubtful that the meeting would result in anything except a general discussion of the idea," he said.

Colburn reported that a plan was suggested to some companies last May but "drew little enthusiasm."

(Editor's Note: *Following is a portion of a News Release of October 10 from Michigan Blue Cross-Blue Shield*)

Michigan Blue Cross said today they would welcome creation of a "pooled risk" health-care program by commercial insurance companies for senior citizens.

Wm. S. McNary, executive vice-president of Michigan Blue Cross, said:

"We are heartily in favor of and support strongly any such program which will help bring a wider choice of coverage to the senior citizens of Michigan.

"We don't look upon it as 'competition' but as a move by commercial carriers to share more widely with us in providing coverage for the aged."

The McNary statement pointed out that of the approximately 50 per cent of Michigan's senior citizens who have coverage, nearly four out of five are covered by Blue Cross-Blue Shield.

He added that the recent Study of Hospital and Medical Economics made to the Governor's Commission on Prepaid Health Care showed that 38 per cent of Michigan's aged had Blue Cross-Blue Shield coverage while commercial insurance covered about 12 per cent.

"We believe such at 'pooling program' as is suggested and presently is in operation in Connecticut, New York and Massachusetts, will broaden the base of available coverage for the aged through voluntary programs in Michigan. This is what we all seek.

"Only by such a combined pooling of risk can the individual insurance companies be expected to obtain the underwriting stability and capacity to accept individual coverage of the aged at rates any where near Blue Cross-Blue Shield rates for comparable benefits," he said.

McNary pointed out that Michigan Blue Cross-Blue Shield currently covers 250,000 persons in Michigan age 65 and over as follows:

1. Some 200,000, representing 80 per cent, have regular group benefits. Of these, 150,000 have group rates and group benefits through pension retiree programs and the remaining 50,000 have group benefits through group conversion at slightly higher rates.

2. Another 50,000, representing 20 per cent, have non-group (individual enrollment) coverage. Some 32,000 are covered through regular non-group, having enrolled before they reached age 65. About 18,000 have coverage through the special senior contract first offered in 1959.

McNary said that Blue Cross-Blue Shield are carrying out their responsibility to all segments of the population including a major contribution to the special problems of the aged. We cannot understand how any one who looks at the record could be critical of Blue Cross-Blue Shield.

Urges Health Insurance Be Provided Retirees

All major U. S. companies should provide "industrial medicare" programs for retired employees.

That plea is made by John T. Connor, president of Merck & Co., Inc., who said that company-sponsored health insurance during retirement offers "exciting possibilities" of progress in the over-all problem of helping elderly persons meet medical costs. He told the recent American Hospital Association convention that such plans are not a complete solution, but that if they were adopted across the country "the nature of the national problem which we face together might be totally changed."

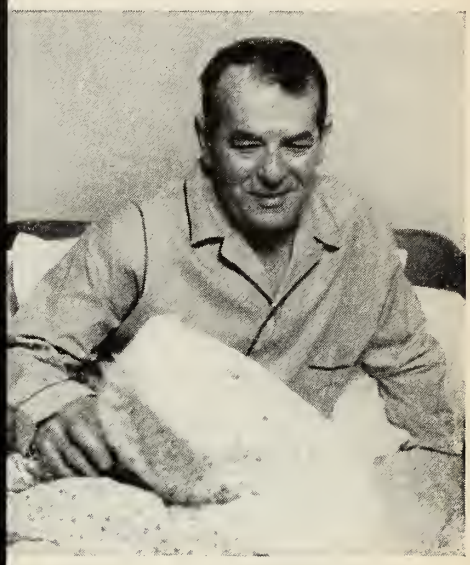
"Every unit of government which does not now do so should also devise adequate plans for taking care of the health needs of its own retired employees," Mr. Connor suggested. "It is a national scandal that those most in need of financial help during sickness in their declining years are often women and men who have served faithfully and well for many years on inadequate salaries as teachers, policemen, firemen and civil servants of all kinds," he added.

"Voluntary and contributory health insurance for retired employees of most corporations and most local, state and federal governments . . . certainly would represent such an appreciable improvement that the remainder of the problem would be more manageable," Mr. Connor said.

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ight, the arthritic wakes up comfortable



Morning stiffness may be reduced or even eliminated as a result of therapy with the only steroid in long-acting form. And the slow, steady release of steroid makes it possible in some cases to reduce the frequency of administration and/or the total daily steroid dosage.

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Supplied in bottles of 30 and 100.

Upjohn

The Upjohn Company, Kalamazoo, Michigan

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Please see package insert for detailed product information.

600 Millionth Dollar Paid Out by Blue Shield

A 12-year-old Battle Creek boy was honored as the patient on whose behalf Michigan Blue Shield paid out its six hundred millionth dollar in benefits.

The six hundred millionth dollar in benefits was paid to Jack Campbell, M.D., for an operation performed on the boy's nose to eliminate an obstruction which had hampered his breathing. The surgery took place in Battle Creek Community Hospital.

The boy, Eric Dotson, his parents, and the doctor were present at an award ceremony at Blue Shield's headquarters in Detroit.

Blue Shield, in its first year, 1940, paid out $172,-115 in benefits for subscribers. Now, MMS averages twice that amount, about $350.000, every working day of the year.

Last year, Michigan Blue Shield paid out $83,030,-774 on behalf of its more than three million members.

Chance has a sense of history as the six hundred millionth dollar in subscriber benefits paid by Michigan Blue Shield fell to a Battle Creek patient. For it was in Battle Creek that the Blue Shield idea was born, at a 1931 meeting of the Calhoun County Medical Society. There, the nation's first Blue Shield plan for prepayment of medical bills was presented by Harry F. Becker, M.D., and the late Joseph E. Rosenfeld, M.D., and R. C. Winslow, M.D.



Left to right are Sidney Adler, M.D., Detroit, president of the Blue Shield Board, making the presentation to Eric Dotson, for whom the $600,000,000th payment was made to Jack Campbell, M.D. *(far right)*, Battle Creek. In the background are Mr. and Mrs. Kenneth Dotson, parents of Eric.

Doctor Adler Re-Elected President of Blue Shield



Sidney Adler, M.D.

Sidney Adler, M.D., Detroit, has been re-elected to a second one-year term as president of the Michigan Medical Service.

James M. Gillen, director of personnel research at General Motors Corp., was re-elected first vice president. Donald N. Sweeny, Jr.. M.D., Grosse Pointe, was elected second vice president, succeeding James M. Blodgett, M.D., Birmingham, who retired from the board after serving the nine-year limit.

Allan K. Cameron, M.D., Saginaw, was re-elected secretary. Harry S. Rudy, vice president of Detroit Bank & Trust Co., was elected treasurer, succeeding Waldo I. Stoddard, a Grand Rapids banker who had held the post six years.

Two executive staff members were named assistant officers: Jay N. Mossmann, finance director, assistant treasurer, and Neal L. McCue, renamed assistant secretary.

U-M Gets $2 Million Grant To Study Health Patterns

How to give the public the most benefit from the billions of dollars being poured into voluntary and tax-supported health programs is to be the new subject of a research program at the University of Michigan School of Public Health. The investigators will also try to determine what makes people accept or reject the recommendations of their doctors.

The U. S. Public Health Service has given a seven-year grant totalling $2,137,000 to finance the U-M study. Vlado A. Getting, M.D., will help direct the study.

"Our basic goals," said Dr. Getting, "are to improve methods for measuring the value of community health programs in protecting the health of the public. We also hope to develop better methods for persuading people to follow sound health practices."

The School of Public Health will have a special investigative staff of 28 persons to work on the project. Specialists will include behavioral scientists, physicians, nurses, engineers, public administrators and biostatisticians.

Many Had Insurance

Survey run on patients 65 and over in Northeast Ohio hospitals reveals that 2,212 or 85.3 per cent of total had their hospital bill paid by insurance or some other third party.

Selection of Patients for Surgery of Congenital Heart Defects

A. M. Stern, M.D.
J. M. Sigmann, M.D.
H. Sloan, M.D.

Ann Arbor, Michigan



A CONGENITAL defect of heart structure places a mechanical burden of variable severity on an otherwise normal myocardium. The best relief for this burden is the surgical correction of the structural abnormality. Such heart surgery may result in cure, palliation, or death. At times survival requires that it be done under emergent circumstances, but more often there is the luxury of selecting a time of convenience. In any event, the patient undergoing the operation accepts an immediate risk in the hope of a long-term gain. The decision with regard to surgical intervention must be made only by weighing this risk against the probable benefit.

Of importance in assessing the danger of operative correction are: (1) the nature of the defect, (2) the age of the patient, (3) the presence of complicating factors, (4) the surgical team. For many lesions, the facilities of a well-equipped cardiovascular laboratory are essential for gaining an accurate knowledge of the pathologic anatomy and physiology. Having this information prior to surgery lessens the operative injury to the patient by reducing the exploratory time and allowing a more precise cardiotomy.

For the simpler defects, surgical correction may be accomplished with 1 per cent mortality or less.[1] Examples of this group are the uncomplicated ventricular defect or patent ductus arteriosus. With a risk of this low magnitude, correction may be offered on a prophylactic basis in the absence of significant physiologic handicap. Unless the patient is symptomatic or shows evidence of increased work of the heart, a risk as low as 5 per cent should be avoided. However, even a risk of greater than 50 per cent may be justified when survival depends on such a step. Complete transposition of the great vessels may fall in the latter category.

The patient's age and size influence mortality and morbidity. A patient of over two years of age or 10 kilograms weight offers a greater margin of safety in balancing the perfusion for open heart procedures than does the smaller child. Furthermore, the very small size of the tiny infant's heart may require a relatively larger incision into the myocardium for adequate visualization of the defect. This results in greater insult to myocardial function. For these reasons, operative correction is postponed generally until the child is older than two years. On the other hand, adults seem to suffer more discom-

This project is supported in part by grants from the Michigan Heart Association.

fort and recuperate less rapidly than children between the ages of three years and puberty. Older adults are hospitalized longer than younger individuals for similar operative procedures.

Among the complicating factors the presence of pulmonary hypertension due to fixed pulmonary arteriolar changes may greatly increase the surgical risk to the patient of any age. It may well be impossible to offer that patient the closure of his septal defect, if his pulmonary vascular disease has resulted in a venoarterial shunt through the opening. Doing so could eliminate a safety valve for an already overloaded right ventricle, throwing it into acute failure. Thus, closure is likely to precipitate the patient's sudden demise. Similarly, coronary insufficiency and chronic myocardial failure increase the operative risk. Obviously, the patient with good myocardial reserve is better able to tolerate surgery than one whose reserve is exhausted.

Certain surgical teams appear to be able to approach a specific cardiac lesion with less risk to the patient than do others. For example, no one else seems to have had the success with partial venous transplants for transposition of the great vessels which Baffes[2] has had.

The gain of the proposed operation for the patient must be appraised carefully along with the risk. It is necessary to consider whether surgery offers a cure or merely palliation. If it is but palliative, indications for surgery must be stronger. Weight must be given to whether the palliative operation will allow for a complete repair later or so mutilate the heart or great vessels that subsequent surgery is impossible.

The closure of an uncomplicated septal defect or patent ductus is an example of a curative procedure in that cardiac function is restored to normal and a potential site for subacute bacterial endocarditis is eliminated. Surgery for coarctation of the aorta, valve abnormalities, or tetralogy of Fallot, although likely to restore normal cardiac function, can not be considered curative. After such operations, blood flow at the repair site is turbulent rendering the patient still subject to the dangers of bacterial endocarditis. Thus, the need for antibiotic prophylaxis with dental or surgical procedures remains for the latter group.

A number of operations are devised which add abnormalities helping to compensate for the existing defects. They do nothing to alter directly the basic lesion and, of course, are not curative. Examples are the Blalock-Taussig,[3] Potts,[4] Baffes,[2] Glenn,[5] and pulmonary artery banding[6] procedures. They serve the purpose of buying time for the patient in distress until a direct approach to his basic defect may be offered more safely. With this in mind, it should be relatively simple to undo the compensatory operation when the direct corrective procedure is employed.

The remainder of the paper will be concerned with the indications for surgery and the risk for specific defects.

Patent Ductus Arteriosus

The mean life expectancy for patients with this lesion is less than half that of the population of the United States as a whole. Closure of the patent ductus arteriosus is the oldest operation for a congenital heart defect. Following the permanent obliteration of the isolated ductus arteriosus, circulation is restored to normal and subacute bacterial endocarditis has not been reported. Furthermore, closure of the infected patent ductus arteriosus was the best means of curing subacute bacterial endarteritis prior to the advent of antibiotic therapy. This most satisfactory curative operation for the uncomplicated patent ductus arteriosus is accomplished with a risk of less than 1 per cent. Because of the opportunity to cure the patient at so low a risk, surgery for this defect is indicated at any age for the relief of symptoms related to it. When the patient is asymptomatic, operation for the prevention of later symptoms or subacute bacterial endarteritis is indicated after allowing the child to reach about two years in hope that spontaneous closure may occur by that time. When the ductus arteriosus is compensating for some other defect such as tetralogy of Fallot, or is complicated by severe pulmonary arteriolar disease causing reversed flow, surgery is contraindicated.

Atrial Septal Defect

The symptomatology of the secundum atrial defect is related to the size of the atrial shunt. This defect may well be tolerated for many years. The average patient may expect to live to be forty to sixty years of age. His later years may be complicated by progressive ease of fatigue, atrial arrhythmias, decompensation, and pulmonary hypertension. Some patients are quite symptomatic during childhood. Bacterial endocarditis is extremely infrequent with this lesion. Since removal of the shunt may restore ten to thirty years to the life expectancy of patients so afflicted, surgical therapy should be considered if the risk is sufficiently low. Using extracorporeal circulation, direct closure of this defect was accomplished at the

University of Michigan Medical Center without mortality for ninety-five individuals whose pulmonary artery pressures were not severely elevated. Sixteen additional patients have had the correction of both a partial anomalous pulmonary venous return and an atrial defect without mortality. Accordingly, it has been our policy to offer correction when the diagnosis is made providing the shunt is primarily into the right atrium. With severe pulmonary hypertension and a reversed shunt, closure has resulted in death.

Ventricular Septal Defect

The size of the defect in the ventricular septum and the pulmonary vascular resistance determine the symptomatology of the patient with this lesion by governing the pulmonary flow. Some infants retain the high fetal pulmonary vascular resistance from birth, and a few develop increasing pulmonary resistance as they become older. This results in low pulmonary flow and possibly cyanosis from infancy or evolving in later years. Persistent cyanosis indicates the patient is beyond surgical assistance. More often the pulmonary vascular resistance falls in infancy so that flow through a large defect from the left ventricle to the right greatly increases. Under this circumstance, severe ease of fatigue, growth failure, recurrent lower respiratory infections, decompensation, and death may occur, most commonly during the first two years of life. However, after the first year many children seem to tolerate their conditions a good deal better, but still face the danger of a complicating subacute bacterial endocarditis which accounts for a 1 per cent mortality for this group according to Keith[7] and in our own experience. If the child survives the first two years of life, he will quite likely survive childhood. A few children appear to be favored with spontaneous closure of the defect. If this is to happen, it generally occurs during the first two years of life in patients whose murmurs suggest that the defect was low in the muscular septum.

A ventriculotomy to close a septal defect is a more traumatic experience for the heart than dividing a patent ductus arteriosus or an atriotomy for closure of an atrial defect. This is particularly true in the small infant for whom the incision must be relatively larger to allow for adequate visibility and repair. A balanced perfusion is likewise more difficult for the tiny infant. Consequently, under the age of two years, closure has been attempted only for those infants with marked cardiomegaly and pulmonary congestion due to the large shunt and, as a rule, associated with severe pulmonary hypertension. Thirty-one such infants have had surgery with a mortality rate of 26 per cent. Of the eight who did not survive, four weighed less than four kilograms. Unfortunately, not all the infants who survived surgery have had complete closure of the defect, though they were markedly improved. A second operation for those with residual defects was done at a time of election, usually between the ages of three to five years, thus far without mortality. Pulmonary artery banding to reduce pulmonary flow has a number of advocates as a temporizing procedure for the infant with a ventricular defect who is in difficulty. However, this approach requires a later operation to relieve the surgically produced pulmonic stenosis and close the ventricular defect.

At this hospital to date, direct surgical repair of the ventricular defect has been attempted for 164 patients over two years of age with a pulmonary artery pressure of less than 75 per cent of the systemic pressure. There were but two deaths in this group in any way related to surgery, a mortality rate of 1.2 per cent. Some of these patients had a residual ventricular patency for which a second operation was done without mortality. As the technique for closure improved, the problem of incomplete closure has been practically eliminated. No patient in this entire group developed complete heart block. It is anticipated that eradication of the ventricular septal defect should eliminate the risk of bacterial endocarditis by removing the turbulent site just as has been observed with obliteration of the ductus arteriosus. In our experience the surgical mortality for patients over two years of age without severe pulmonary hypertension is no greater than that of bacterial endocarditis. For this reason, as well as for the relief of whatever physiologic handicap the defect causes, surgery has been advised even in the absence of significant symptoms.

The risk of closure for 30 patients over two years of age with a pulmonary artery pressure exceeding 75 per cent of the systemic arterial pressure was 37 per cent. This percentage figure is weighted adversely since these patients, being the sickest, were among the first to be considered when open heart surgery for ventricular defects was begun at this hospital. Where the pulmonary flow significantly exceeded the systemic flow, the major gain to these distressed patients justified the increased risk of obliterating the ventricular defect. Closure when the shunt is reversed is contraindicated.

Coarctation of the Aorta

Coarctation of the aorta alone or in combination

with a patent ductus arteriosus may lead to intractable failure in infancy. If it cannot be controlled with digitalis, or if the heart remains greatly enlarged and development lags, surgical correction is instituted promptly. Because of the possibility of inadequate growth at the anastomotic site leading to a region of narrowing as the rest of the aorta enlarges, ideally, correction should be postponed until eight to ten years of age. This postponement is a luxury the infant who does not respond rapidly to measures for failure can ill afford, since many will have died during this period.

Life expectancy for coarctation over the age of two years is approximately one-half that of a normal individual. Death may result from rupture of the aorta, cerebral hemorrhage, and subacute bacterial endarteritis as well as heart failure. Cardiac enlargement, hypertension, x-ray evidence of aortic enlargement, hemorrhage, and intermittent claudication are all indications for surgery. It may be offered at any age though realizing that arteriosclerotic changes in the aortic segments makes the anastomosis more difficult in the older individual. Surgical risk is about 2 per cent. It should be remembered that the repair site remains a focus at which infection might settle resulting in subacute bacterial endarteritis.

Pulmonary Valve Stenosis

As an isolated lesion, pulmonary valve stenosis increases the work of the right ventricle and can limit its output so as to produce exertional dyspnea. Reduced exercise tolerance, cardiac enlargement, electrocardiographic evidence of marked right ventricular hypertrophy, a right ventricular pressure exceeding 70 to 80 mm. of mercury, or right ventricular failure are indicative of surgical need. Using extracorporeal circulation techniques, time is allowed for a careful incision of the valve leaflets along the fused commissures so as to adequately relieve the obstruction and minimize the occurrence of valvular insufficiency. Seventy-five patients have had this approach to their valvular obstruction with one death related to the surgery. This child presented with a Pseudomonas aeruginosa endocarditis two months after her operation and died of it eight months later. Some degree of pulmonary valve insufficiency, though not an infrequent surgical complication, has been well tolerated thus far.

Aortic Stenosis

Congenital valvular or subvalvular aortic stenosis may cause acute left ventricular failure and sudden death. This tragic event is forecast, at times, by exertional chest pain, syncopal attacks, electrocardiographic evidence of left ventricular hypertrophy with T wave changes over the left chest leads, cardiomegaly, and a decreasing exercise tolerance. These signals must not be ignored lest ventricular fibrillation pre-empt surgical relief. A gradient at rest of greater than 60 mm. Hg. across the stenotic site also indicates the need for relief even in the absence of the aforementioned findings. An aortic valvulotomy is more serious than a pulmonary valvulotomy in that should insufficiency result in the higher pressure system, interference with coronary perfusion may occur. Thirty-three patients with congenital aortic stenosis above, at, or below the valve have had surgery with four deaths in this group. In addition, two of the surviving patients have developed enough insufficiency to be symptomatic and will probably require a further surgical procedure. As with other valve repairs, functional relief still leaves a turbulent site subject to the danger of a complicating subacute bacterial endocarditis for which prophylactic antibiotics must be used prior to dental and surgical procedures.

Congenital Mitral Insufficiency

Eight patients with congenital mitral insufficiency had a valvuloplasty, and the majority had an annuloplasty as well. There were no deaths in this group. One patient after marked improvement had a recurrence of his symptoms necessitating a second operation. The indications for surgery include gross cardiac enlargement, left-sided heart failure, pulmonary congestion, growth failure, and persistent dyspnea.

Tetralogy of Fallot

The severity of symptoms of the patients with Tetralogy of Fallot parallels the degree of the pulmonic stenosis causing the restriction of pulmonary blood flow. With the spontaneous closure of the ductus arteriosus, the infant with marked pulmonic stenosis experiences the onset and rapid progression of cyanosis and dyspnea. He may become too tired to feed and have attacks of syncope and convulsions. Cerebral thrombosis related to the compensatory polycythemia and dehydration, should it occur, is fairly common particularly during infancy. The ventricular defect accompanying the pulmonic stenosis allows for paradoxical emboli making brain abscesses not uncommon. The severely afflicted patient may die during infancy although the average patient generally reaches the teens. The occurrence of paroxysmal dyspnea, syncope, convulsions, marked polycythe-

mia, and growth failure signal the urgent need for surgical relief at whatever age these findings present.

The direct correction of the ventricular defect and pulmonic stenosis produces a much better functional result than the creation of a systemic-pulmonary artery anastomosis. The latter merely adds another defect which increases pulmonary blood flow and thereby, helps relieve the anoxemia. However, the direct approach is technically very difficult under three years of age and carries such a high risk that a better tolerated shunt procedure is indicated below this age to buy time until the child reaches such size that the former may be more safely employed. It has been our present program to do the direct correction of the tetralogy of Fallot as a primary approach or after the prior shunt before the child enters school. In all, 108 patients have had the direct correction of the correction of the tetralogy of Fallot at this hospital with 19 deaths. One of the surviving children has a complete heart block and will probably require an electronic pacemaker. Though there still is a high risk in this surgical correction, the remarkable restoration of function and probability of prolonging life for these patients appears to justify the recommendation for surgery.

Transposition of the Great Vessels

In the majority of instances, this lesion results in death prior to six months of age and severely handicaps those who manage to survive. With the exceedingly poor prognosis for these patients, high risk attempts at palliation or correction are justified. Transposing the arterial trunks surgically does not appear to be feasible because of the difficulty in handling the coronary artery shift. Removing the atrial septum[8] through increasing the opportunity for systemic and pulmonary venous exchange, appears to be of some benefit. Baffes,[2] transplanted the right pulmonary veins into the right atrium and by using a graft the inferior vena cava into the left atrium to direct the exchange of oxygenated and desaturated blood. The same functional result was accomplished at this hospital without having to use suture lines at the vessel insertions for a few infants with a risk thus far exceeding 50 per cent. Senning[9] was able to completely transpose the systemic and pulmonary venous drainage to compensate for the arterial transposition, again with a discouragingly high risk. When pulmonic stenosis exists in addition, the creation of a shunt between a systemic and pulmonary artery may be of benefit.

Other Defects

A number of other lesions have come under surgical attack. Some, such as the total anomalous pulmonary venous return, the coronary artery fistula, and vascular rings around the trachea and esophagus lend themselves to curative surgery. On the other end of the scale are those conditions such as truncus arteriosus, aortic atresia, and endocardial fibroelastosis for which no operative approach of proven value has been demonstrated. In between these extremes are a number of conditions for which a variety of procedures are offered for improvement though not restoring normal function. Tricuspid atresia, for which a systemic-pulmonary artery shunt, removal of the atrial septum, and superior vena cava to right pulmonary artery anastomosis have been offered with little hope of ever being able to give the patient a heart with four functional chambers, is an example of this third category.

Summary

Patients with congenital heart abnormalities are selected for surgery in hope of curing their defects or allowing them to live longer and more comfortably should cure not be available. The anticipated gain must justify the risk. The age at which an operation is performed depends upon the type of defect and the urgency of its need. Surgery for the closure of simple openings between the systemic and pulmonary sides of the circulation is generally postponed during the first two years of life to allow for greater technical ease and the faint possibility of spontaneous obliteration. With the exception of repairing coarctation of the aorta, most defects are corrected by election just before the child starts in school. The risk of repair for the uncomplicated lesions, including those requiring perfusion techniques, is about one per cent.

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(Additional references on Page 1385)

A Study of External Cardiac Compression

L. H. Birch, M.D.
L. J. Kenney, M.D.
F. Doornbos, M.D.
D. W. Kosht, D.V.M.
C. E. Barkalow, M.S.

Grand Rapids, Michigan

THE INTRODUCTION of external cardio-pulmonary resuscitation in 1960 by Dr. Jude and his co-workers provided a practical technique for treating cardiac arrest.

We were interested in extending the technique to the scene of the arrest in non-hospitalized patients. To assist in the transportation of these patients, a mechanical device, which would perform the chest compression, was developed*. Mechanizing the procedure provided the stimulus to determine the most effective manner in which to produce perfusion by depressing the sternum. It also provided a means of making this determination.

This communication will summarize our experience with varying the force used in compressing the chest, the rate of compression and the period of systole and diastole during chest compression.

Materials Used (Figure 1)

Mongrel dogs and Kenya baboons were used as experimental animals. Twenty-four animals were studied. Baboons were anesthetized with "Sernyl"† 5 mgm/Kg. Dogs were anesthetized with veterinary pentobarbital sodium and mephensin (Myotol)** 32 mgm/Kg IV. When possible, we used animals of the boxer and basset hound type.

Animals were ventilated with 100% oxygen through a cuffed endotracheal tube, by compressing manually, a 3 liter anesthesia bag. This positive pressure ventilation was done in one of three ways: (1) unrelated to the compression cycle, (2) alternated with every fifth or eighth cardiac cycle, (3) interposed between each fifth or eighth cardiac cycle without interrupting the rhythm of the cycle. Ventilation was interrupted for recordings since positive pressure ventilation appeared to augment A-V pressure differences. We found the unrelated technique quite adequate. Needle electrodes were used as pick-ups for recording the electrocardiogram.

A femoral artery was catheterized for recording arterial pressures. The catheter was advanced, retrograde to arterial flow, to the level of the diaphragm. The femoral vein of the opposite rear leg was cannulated by a purse string technique using a 1 mm. polyethylene tube directed caudad and advanced distal to two of the venous valves. Care was taken to assure free flow of blood around the tube at the site of the cannulation. The recording of peripheral venous pressures eliminated the high venous pressure noted in tracings taken from the inferior vena cava.

Recordings were made on a Sanborn Poly Beam (Model 558). Statham P23Db strain gauges were used.

Chest compression was done with the Butterworth-LSI External Cardiac Compressor. The mechanism consisted of a base plate, to which a "V"-shaped cradle was attached for animal work, and a pedestal which supports the cylinder-piston unit used to produce the compression. It is pneumatically powered and electrically controlled. Force can be varied by changing the pressure within the pneumatic system.

The rates of compression and the period of systolic thrust were varied by a specially constructed control unit. This unit permitted selection of rates of 60, 90 or 120 cycles per minute. The duration of systole could be set at 30, 40, 50, 60 or 70 per cent of the cycle at each of the three rates.

Compression was done in the anteroposterior diameter of the animal's chest. A molded resilient

From the Department of Physiology and the Division of Thoracic Surgery, Butterworth Hospital, Grand Rapids, Michigan. Supported in part by a grant-in-aid from the Michigan Heart Association. Presented as a scientific exhibit at the American Medical Association Annual Meeting, Chicago, Ill., June 24-28, 1962.

Mr. Barkalow is manager of Advanced Engineering at Lear-Siegler Inc., Grand Rapids, Michigan, and is consultant in bio-medical engineering at Butterworth Hospital.

*The Butterworth-LSI External Cardiac Compressor. Lear-Siegler Incorporated, Grand Rapids, Michigan.

†Parke-Davis & Company, Detroit, Michigan.

**The Warren-Teed Company, Columbus 15, Ohio.

hemispheric rubber pad was used on the face plate of the piston to contact the sternum. Sandbags were used to prevent migration of the animal on the base plate and also to prevent rotation of the chest. Such migration affected reproducibility of the data.

in 10 to 15 minutes if needed), Calcium Chloride 1 gm, Levarterenol bitartrate (Levophed) 4 cc. of a 2 per cent solution diluted in 250 cc. 5 per cent glucose in water, Isoproterenol hydrochloride (Isuprel®) 0.2 to 1 mgm. IV.

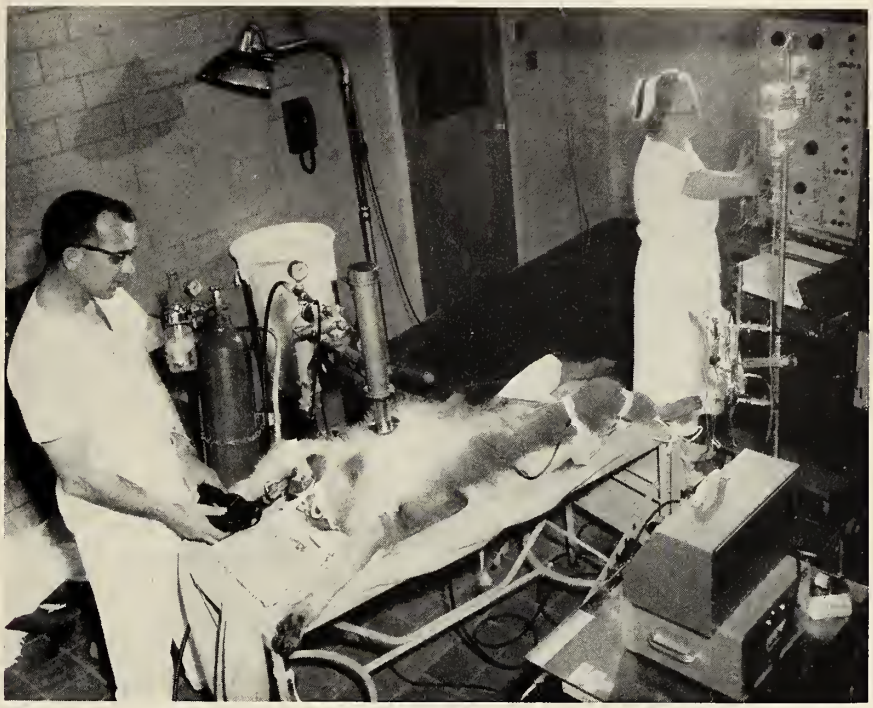


Fig. 1. Animal preparation and equipment arrangement (See text).

Fibrillation was produced by a trans thoracic 110 V shock of 1 to 3 seconds' duration. Data were not recorded until pupillary dilitation had occurred and arterial pressure had dropped to a steady low level (usually 15 to 20 mm Hg.). This varied from 30 to 90 seconds in most animals.

Defibrillation was by a 440 V AC shock lasting 0.25 sec. applied externally along the longitudinal axis of the heart (supra-sternal notch to apex). Occasionally, defibrillation was done at a 220 V or 880 V setting. Three-inch diameter electrodes with saline soaked pads were applied with considerable pressure on the shaved chest.

On six occasions, flow measurements were recorded, five measuring carotid flow. Once an extra corporeal circuit and probe‡ was used to measure abdominal aortic flow.

Adjunctive therapy was used in the post defibrillation period. It consisted of the IV administration of Epinepherine 0.5 mgm, Na HCO_3 44.6 meq (repeated

‡Metre flow 6000 — Avionics Research Products, Inc., Venice, California.

Animals not recovered were autopsied immediately. Two animals have been permitted indefinite long term survival. The remainder were autopsied on the 5th post operative day.

Results

Seventeen animals were recovered to their pre-fibrillation status. In seven animals, we were unable to obtain a satisfactory return of cardiac function following the study.

Three of these had ruptured livers. In two, this was found at autopsy after mild abdominal pressure was exerted manually during external compression in an attempt to augment venous return. The hepatic pressure always produced a high venous pressure.

This finding prompted a study to demonstrate that abdominal pressure was the cause of the rupture. Following successful defibrillation in a second animal, a laparotomy was done to exclude hepatic rupture and hemoperitoneum. The incision was then closed and mild pressure exerted on the abdomen, manually while two chest compressions were done using the same force

and rate as before. Re-exploration of the abdomen showed a star-shaped laceration of the liver and blood free in the peritoneal cavity. The third hepatic rupture was attributed to improper positioning of the mechanical resuscitator.

agent in these primates. It did render pupillary changes unreliable.

Body temperative regulation and attendant "shivering" were problems using baboons anesthetized with Sernyl.

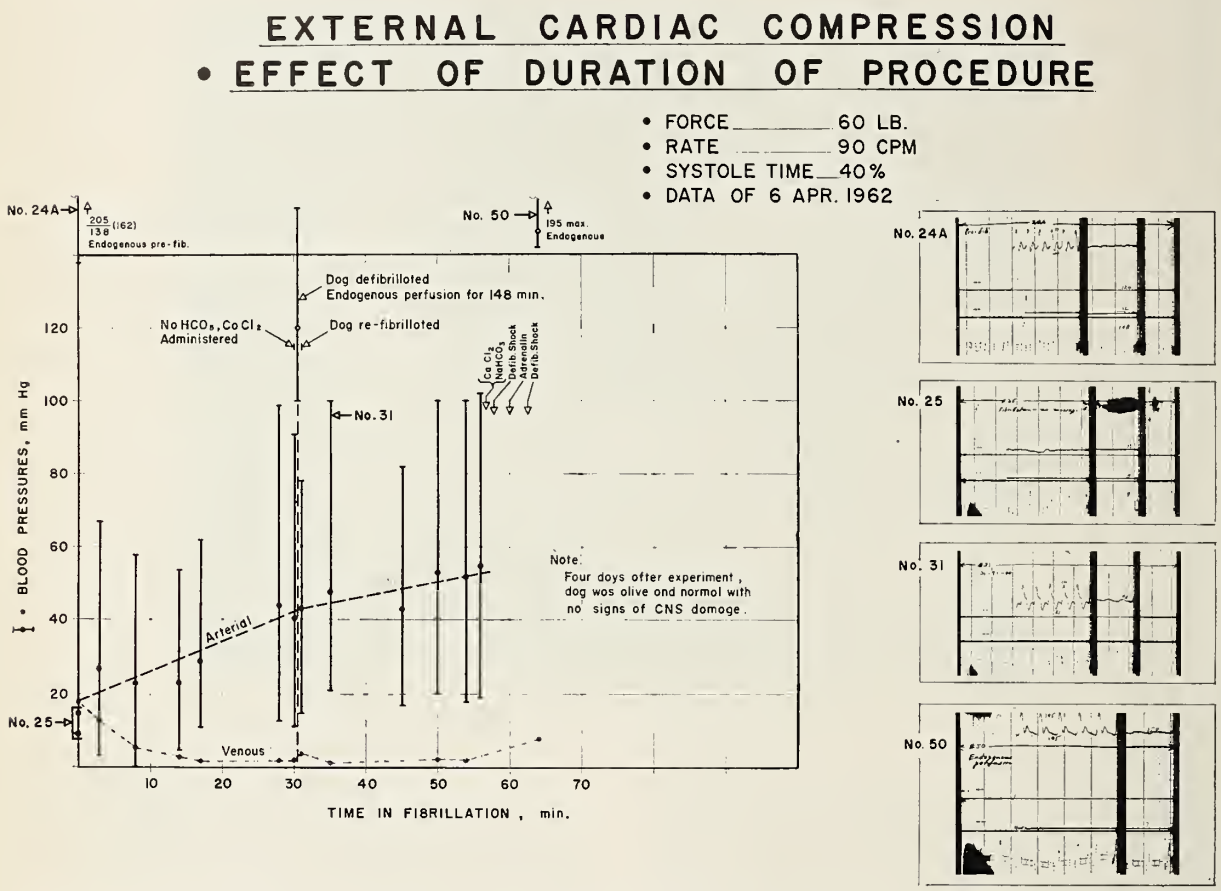


Fig. 2. The data indicate a gradual increase in mean arterial pressure as the duration of external compression progresses. This was attributed to break down of the costo-chondral junctions. Recordings reproduced at the right are from top to bottom, (24a) prefibrillation; during fibrillation with no external compression (25), pressures during mechanical external compression (31), and after restoration of normal endogenous cardiac function (50). Each tracing shows arterial pressure (above), venous pressure (center), and electrocardiogram (below).

There was no obvious explanation for failure to recover the other four animals. There may have been excessive damage to the myocardium during fibrillation or excessive compromise of ventilation during pauses for recordings. There was always associated pupillary dilitation. Cardiac function would return without effective peripheral pressures despite adjunctive therapy.

Kenya baboons were not significantly superior to boxer dogs and basset hounds as experimental animals for this procedure. They can be managed safely provided adequate cages with "squeeze provisions" are provided. Sernyl is an easily used effective anesthetic

It was possible to recover normal cardiac function in dogs after periods of up to 90 minutes of fibrillation, using external cardiac massage and positive pressure ventilation.

In the subject presented in Figure 2, arteriovenous pressure difference actually increased as length of time that external chest compression was used increased. We attribute this to breakdown of the costo-chondral junctions.

The A-V pressure difference obtained increased as the force applied to the chest was increased over the range studied. Perfusion appeared to reach a maxi-

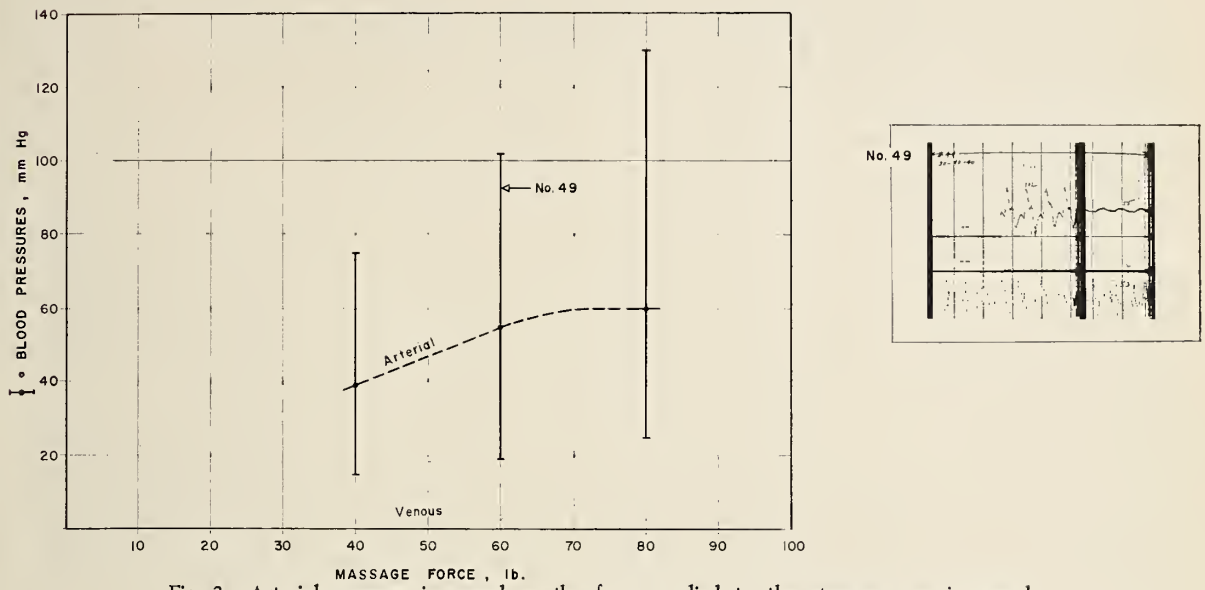


Fig. 3. Arterial pressure increased as the force applied to the sternum was increased.

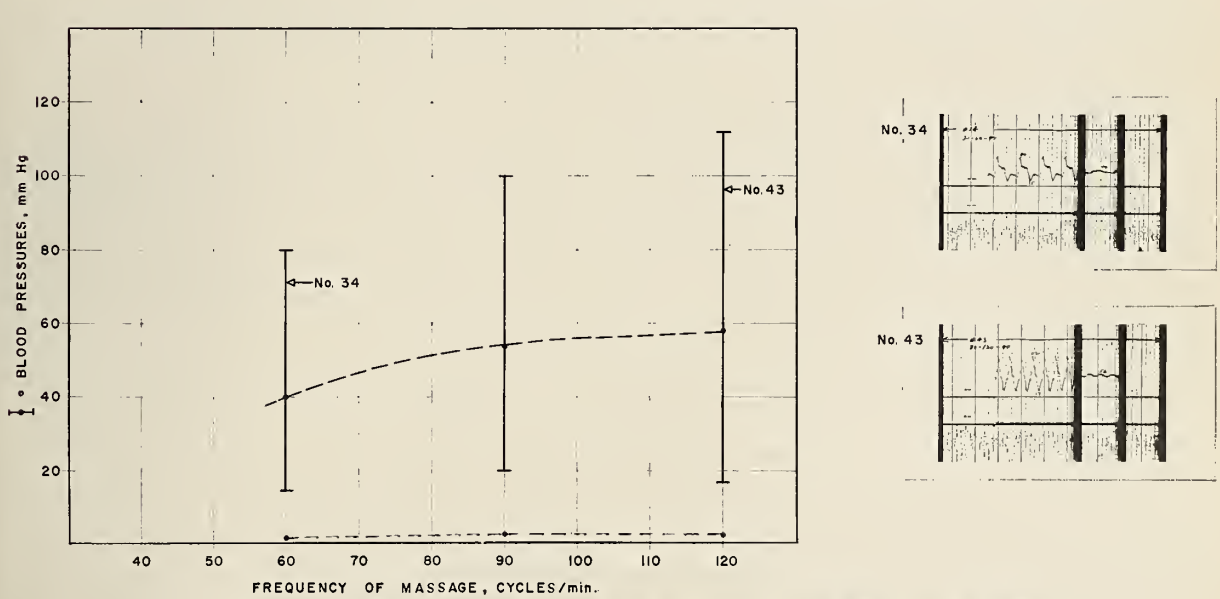


Fig. 4. Arterial pressure increased as the rate of external compression was increased.

mum, probably related to complete cardiac emptying, at a force of 60 to 80 pounds in dogs (Fig. 3).

Perfusion also rose as the rate of compression was increased when force (60 pounds) and systolic time (40 per cent) were kept constant (Fig. 4).

The limited study of flow indicated that flows paralleled pressure changes over short rather steady state periods. However, peripheral flow dropped when pressure rose following the use of a peripheral pressor agent (Levophed).

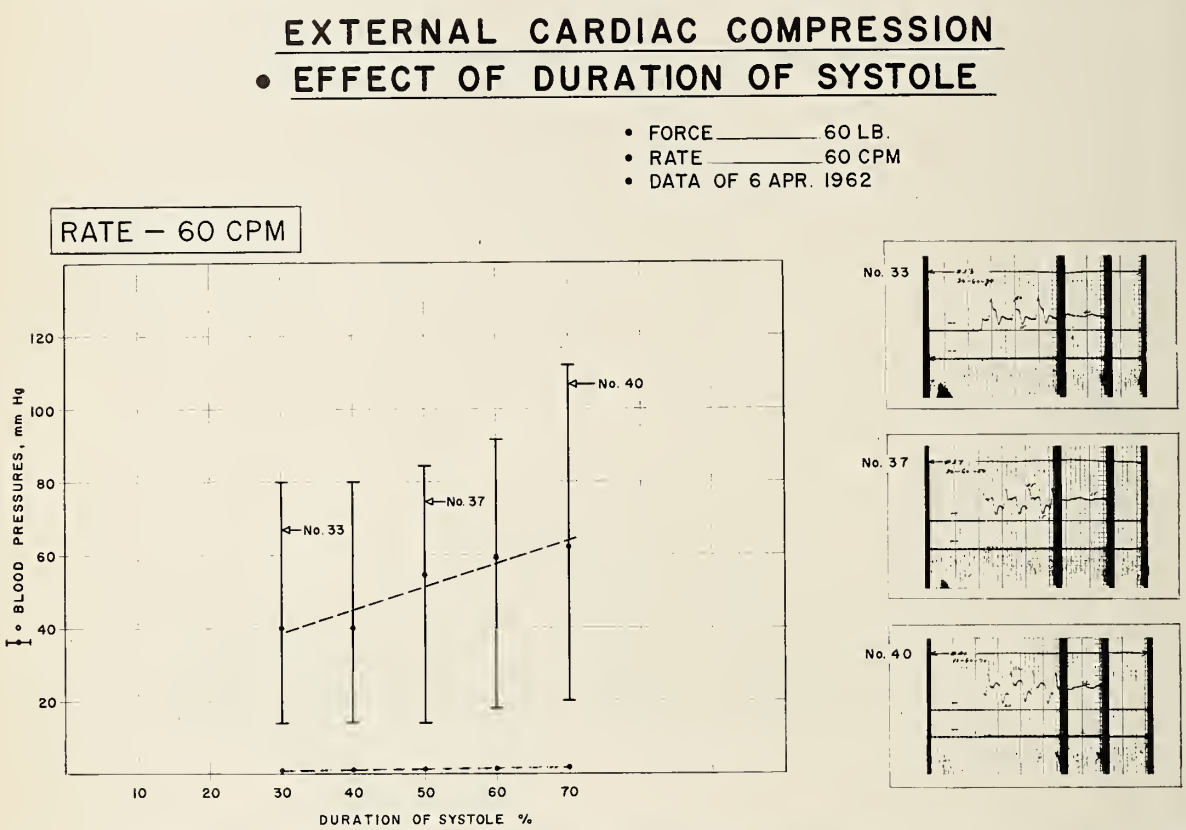


Fig. 5. An arterial pressure of 112/20 with a mean pressure of 62 was obtained using a rate of 60, 60 pounds force, and systolic thrust period of 0.7 second. This slightly exceeded pressures obtained at a rate of 120 with 0.25 second systole (Fig. 7).

The effect of duration of systole was studied at different but constant rates. Force was kept constant.

At a rate of 120, arteriovenous pressure difference rose as the length of systole increased up to the point of 50 per cent systole (diastolic filling period of 0.25 second). Increasing the period of systolic thrust to 60 per cent (leaving a diastolic period of 0.20 second) produced a rise in venous pressure, a fall in arterial pressure and of course a drop in A-V pressure difference (Fig. 7).

At a rate of one compression per second, however (Fig. 5), the duration of the systolic thrust could be extended to 70 per cent of the cycle (diastole 0.30 second) with progressive increase in perfusion.

This was also true at the rate of 90 (Fig. 6. Diastole 0.27 second @ 60 per cent systole).

Discussion

One goal of the study was to determine the most effective method of producing perfusion with the least trauma.

It would appear that the slower rate (60) with a long systolic thrust period will produce the best perfusion.

We postulate that this may be related to the altered manner of systolic ejection operative in external cardiac compression. In the normally contracting heart the ventricular chamber is compressed in three planes. Ejection is rapid. With external antero-position compression only, a longer systolic ejection period would be needed.

The data are at variance with the concept that a long diastolic filling period augments perfusion in ex-

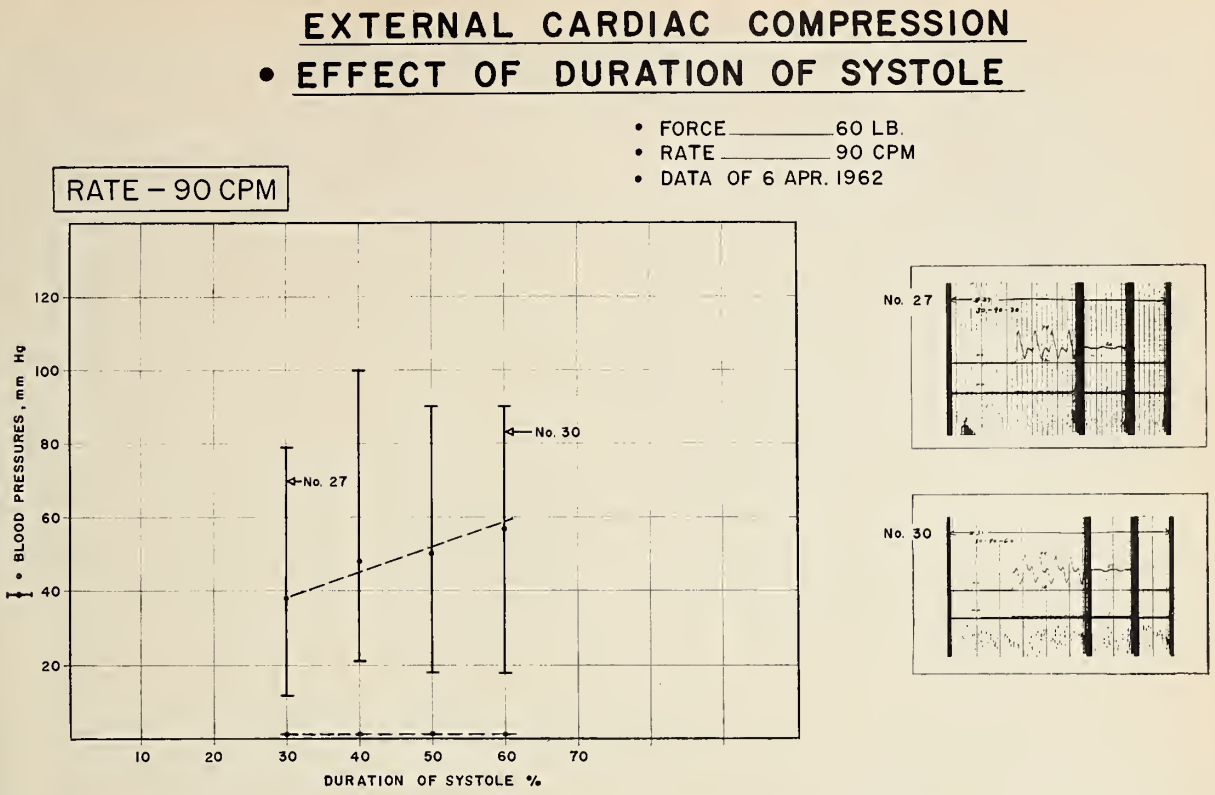


Fig. 6. At a rate of 90, arterial pressure rose as the duration of systole. Data were not recorded at 70 per cent systole.

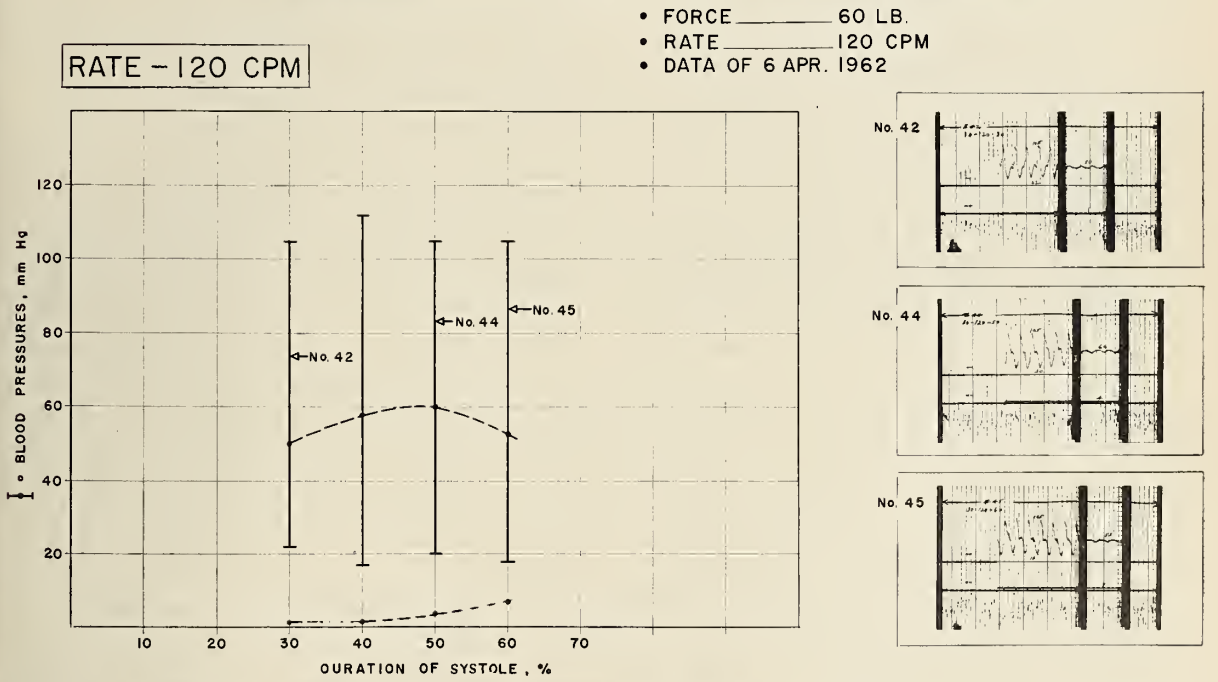


Fig. 7. At a rate of 120 compressions per minute, pressures initially rise as the duration of systole was increased from 30 to 50 per cent. When systole increased from 50 to 60 per cent of the cycle, a fall in arteriovenous pressure difference occurred. This was attributed to incomplete cardiac filling associated with the short diastolic filling period (0.2 second).

ternal chest compression. It may be that prompt filling occurs as the chest cage springs back and that perfusing the capillary bed is the most effective way of augmenting venous return.

The data must be regarded as preliminary. They should be confirmed by using flow studies.

The clinical application suggested is that the short systolic thrust so commonly used in external chest compression should be avoided. A longer period of application of force with a short release period would be more beneficial. Holding pressure down for the "one thousand" and releasing for the "one" of the usual "one thousand one, one thousand two" cadence count will provide the correct timing for external chest compression.

Summary

Kenya baboons and mongrel dogs were used to study External Cardiac Compression.

The force, rate and duration systolic thrust were varied independently, using a mechanical device so that each unvaried parameter could be held constant.

A rate of 60 with a systolic thrust duration of 70 per cent of the cycle produced the best perfusion in mongrel dogs.

The data suggest that longer periods of compression with short release periods will be superior to frequent short "jabs" at the sternum when attempting to produce perfusion using manual external cardiac compression.

A by-product of the study is the suggestion that belts and undergarments which restrict abdominal movement may contribute to the incidence of hepatic rupture, in external cardiac compression. These should be loosened before vigorous chest compression is attempted.

MEDICAL MAXIMS

In chronic pneumonitis inquiry should always be made as to the use of mineral oil.

•

The incidence of staphylococcal pneumonia increases 3 to 6 fold during epidemics of influenza.

•

Statistically about a third of pulmonary coin lesions are malignant tumors.

•

A diagnosis of cerebral hemorrhage is more likely than thrombosis when: (1) there is unconsciousness at the onset; (2) severe headache, nausea or vomiting; (3) Cheyne-Stokes or labored respirations; (4) conjugate deviation of the eyes; (5) neck stiffness, quadriplegia and bilateral Babinski; and (6) bloody spinal fluid.

•

Latent jaundice is always present in patients with congestive heart failure. When the jaundice becomes manifest the prognosis is bad.

—From "711 Medical Maxims II" by W. S. Reveno, M.D.

Newer Concepts in Mitral Valve Surgery

Joe D. Morris, M.D.
Herbert Sloan, M.D.
Ralph Brandt, M.D.

Ann Arbor, Michigan

THE PAST four years have witnessed two radical improvements in the surgical treatment of mitral valve disease. One of these is the transventricular dilator technique which achieves a more complete opening of the stenotic mitral valve. The other revolutionary improvement is the direct-vision or open method of mitral valvuloplasty performed with the aid of cardiac bypass employing a pump-oxygenator. By this technique any significant dysfunction of the mitral valve can be corrected totally or in great part whether it be mitral stenosis, mitral insufficiency, or any combination thereof, including complicating factors of calcification or atrial thrombus.

Transventricular Valvuloplasty for Mitral Stenosis

The transventricular dilator, devised originally by Tubbs, a British surgeon, consists of a two-flanged dilator presenting a blunt, tapered nose which can be introduced into the left ventricle relatively bloodlessly through a tiny stab wound in the apex (Fig. 1). The surgeon's finger which has been introduced by way of the auricular appendage into the left atrium assesses the mitral valve and guides the closed dilator into the stenotic valve orifice. The dilating flanges are then opened with considerable mechanical advantage against the leaflets, producing a controlled dehiscence of the fused commissures. The valve opening and functional results achieved by this maneuver are superior to results using any other method of closed mitral valvuloplasty. Use of a commissurotomy knife by the most experienced surgeon will produce on some occasions valvular insufficiency following an inaccurate incision in the zone of the commissure. This hazard would appear to be minimized with the transventricular dilator. Use of the dilator shortens the critical time of intracardial manipulation as only one to three openings of the dilator are necessary. Less vigorous and violent intracardial manipulation is required than was the case with the older finger-fracture technique, resulting in less embarrassment of the circulation during this critical phase of the operation.

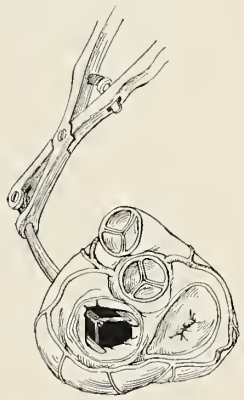


Fig. 1. Transverse sectional view of the heart as seen above the atrial ventricular ring. The transventricular dilator introduced by stab wound through a pursestring suture in the left ventricle is seen partially open with its flanges applying pressure against the mitral valve leaflets opening the commissures. The shaft of the dilator seals the stab wound during this maneuver. After the dilator is closed and withdrawn from the heart the pursestring suture is tied, controlling bleeding from the ventricle.

The selection of patients for operation using the transventricular closed technique is limited to those having pure mitral valve stenosis without insufficiency or multivalvular disease. A history of embolus or valve calcification is an indication for direct vision valvuloplasty. Fifty patients have undergone correction of mitral stenosis by this method at these institutions. Two patients have died, producing a mortality of four per cent which is comparable to mortality figures for operation by the earlier technique. One of these patients was hemiplegic preoperatively due to a cere-

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This work was supported in part by the Michigan Heart Association and USPHS grant, H-5844 (CI).

bral embolus. Extensive atrial thrombus was encountered at operation but despite this an excellent correction of severe mitral stenosis was achieved and the diastolic murmur was eliminated. Postoperatively an embolus to the iliac artery led eventually to amputation. The patient succumbed to cardiac arrest approximately four weeks after operation. The history of embolus is now considered an absolute indication for open cardiotomy and valvuloplasty so that atrial thrombus can be removed. The other fatality was due to acute pulmonary edema and cardiac decompensation occurring immediately after operation.

In the remaining forty-eight patients the functional result has been judged superior to the results achieved by older closed methods. The diastolic murmur has been completely eliminated in approximately 25 per cent of the patients. The single shortcoming of the operation appears to be that the mitral opening can be made too large, resulting in mitral regurgitation. The operator therefore strives for a compromise between a complete opening and an adequate opening. When regurgitation has been produced there is no dependable closed method to correct this problem. The chances are that regurgitation produced at the operating table will increase postoperatively as the left ventricle begins to enlarge. No effort is made to open the mitral valve beyond the controlled setting of the dilator of 45 millimeters. In none of the forty-eight survivors has there been failure to achieve adequate relief of mitral valve stenosis. The problem of mitral valve insufficiency created during operation for stenosis in two patients has required open valvuloplasty for correction.

Open Mitral Valvuloplasty

Over the past four years open procedures on the mitral valve have gained acceptance on the basis of the superior results achieved by this approach to lesions of the mitral valve. Under direct vision the nature of mitral valve dysfunction can be accurately determined and a logical correction attempted. As open valvuloplasty technique has improved, the operation has been extended to better-risk patients. Some surgeons advocate the treatment of all mitral lesions by open mitral valvuloplasty on the grounds that the risks are no greater than with closed technique and the results in the majority of cases are superior. In our experience one hundred patients underwent open mitral valvuloplasty for the following indications: (1) mitral valve insufficiency, (2) unsatisfactory valvuloplasty by the closed technique or recurrent stenosis, (3) atrial thrombus, embolic history, or severe valve calcification, (4) multiple valve disease, (5) congenital mitral valve stenosis, and (6) functional class IV patients in cardiac failure due to mitral stenosis.

Approach

The operation is performed through the right chest with the patient lying on his left side. The superior and inferior venae cavae are cannulated through the right atrium and blood conducted through the pump oxygenator whence it is returned to the patient by way of the right femoral artery. After initiating total heart-lung bypass the left atrium is opened anterior to the right pulmonary veins to expose the mitral valve.

Mitral Valve Stenosis

After the mitral valve has been exposed the atrial chamber is carefully examined for atrial thrombus which is removed as cautiously and completely as possible (Fig. 2). Particular attention is paid to the orifices of the inferior pulmonary vein where thrombus may arise and be overlooked. Thrombus has never been encountered with any lesion other than mitral valve stenosis. The valve is examined and retracted into view with special retractors to expose zones of the fused commissures. If the commissure can be accurately identified it may be incised with precision, care being taken to avoid injury to the accessory leaflets. In the presence of calcification the line of fusion may be difficult to see, in which case a blunt dilator is employed to dehisce the leaflets cautiously. Any injudicious incision or inaccurate opening of a fused commissure is evident by the insufficiency produced. As the heart is beating this is recognized and can be repaired immediately.

After the commissures have been opened subvalvular freeing of chordae tendineae and papillary muscles is accomplished. This provides better mobility of the mitral leaflets and improves valve closure. This phase of mitral valvuloplasty is impossible by any closed technique. Calcification when present is removed piecemeal by rongeurs and use of subendocardial dissection with small dissectors. Care is taken to avoid perforation of the valve leaflets. Should this occur repair with woven Teflon fabric is possible.

In this series, 25 patients were undergoing a second operation for relief of mitral stenosis. The single death in this group occurred in a man who also had severe aortic stenosis and died suddenly in the early postoperative period. Thirty-one patients presented pure mitral stenosis without mitral insufficiency. Seven of these patients suffered multiple valve disease, either tricuspid or aortic. The mortality in this group was

two patients, both of whom suffered multiple valve disease. There were 35 patients who presented a combination lesion of the mitral valve of mitral stenosis and mitral insufficiency. There were five deaths in this group, four occurring in patients who had multiple valve involvement. The total number of patients suffering stenosis in some form or combination was sixty-six. Thirty patients presented multiple valve disease and in this group there were 10 deaths making a mortality of 33 per cent. This high mortality is related to the more extensive surgical procedure necessary to correct more than one valve as well as the poor cardiac reserve in patients with multiple valve dysfunction.

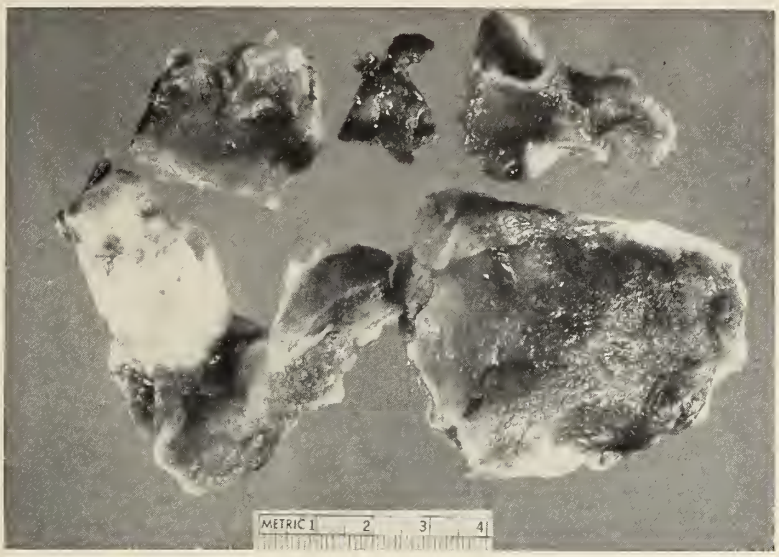


Fig. 2. Well-organized thrombus removed from wall of left atrium in patient undergoing a second operation for mitral stenosis. Such large thrombi are most common on the posterior wall of the atrium where they may interfere with emptying of the pulmonary veins.

Mitral Insufficiency

The surgical correction of regurgitant lesions of the mitral valve poses a greater challenge than mitral stenosis. With increasing experience, the results have improved until they now are as dramatic as those achieved in mitral stenosis. Thirty-four patients in this group had pure mitral insufficiency while another thirty-five had a combination of mitral stenosis and regurgitation.

Pure Mitral Insufficiency

Of the 34 patients with pure mitral insufficiency the disorder was considered to be congenital in eleven. In this latter group, a murmur was present since infancy and no history of rheumatic fever could be obtained. The mean age of the congenital group was 4 years. The results in this category have been very satisfactory and the patients have maintained their correction. The longest follow-up is now four years. No deaths have occurred in this group. In the 23 patients with acquired mitral insufficiency the mean age was 37 years. The mortality was higher in this group than any other except multiple valve disease. Five patients have succumbed to efforts to correct severe mitral regurgitation, while only one death occurred in the past 10 patients operated on for this lesion, indicating the mortality should ultimately compare with that for mitral stenosis. Improvement has been dramatic in all survivors.

The mechanism of pure mitral insufficiency is sometimes difficult to demonstrate. The congenitally insufficient valve may display a cleft in one of the leaflets precluding normal closure of the valve during ventricular systole. Thickening of the leaflets and chordae tendineae and endocardial thickening in the subvalvular area sugest endocardial fibroelastosis may play some role in congenital mitral insufficiency.

In pure mitral insufficiency secondary to rheumatic heart disease, the valve appears surprisingly good compared to the anatomy seen in mitral stenosis. While some thickening of the leaflets is noted there is rarely calcification and the chordae and papillary muscles appear normal. The mechanism of regurgitation appears

to be an expansion of the atrial-ventricular ring producing a widened diameter of the annulus. The annulus represents a portion of the fibrous skeleton of

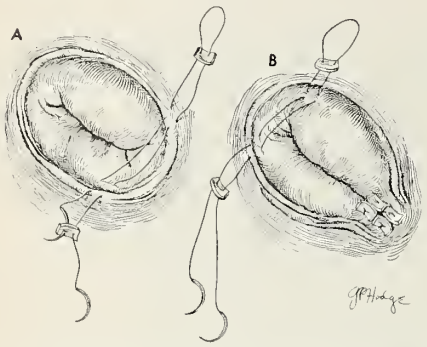


Fig. 3. Annuloplasty technique, showing the annulus being narrowed by mattress sutures taken carefully through the annulus fibrosis avoiding valve tissue. Small Teflon squares are incorporated in the mattress suture to avoid cutting through. Reduction in the diameter of the annulus without involving the valve tissue permits the latter to adequately close the valve ring.

termed annuloplasty (Fig. 3). The annulus diameter is narrowed by taking a tuck or pleat in it at either or both commissures without disturbing the valve tissue itself. The result is a reduced valve ring area which can be adequately closed by the available valve tissue during ventricular systole.

Another mechanism of mitral insufficiency is rupture of chordae tendineae or a papillary muscle. This situation may occur as a late complication of myocardial infarction. The problem has been encountered in four patients all over 50 years of age, the eldest being 60. Excellent correction and final result were achieved in all cases using a strip of woven Teflon cloth fabricated to serve as chordae tendineae and papillary muscle (Figs. 4 and 5). The end of the Teflon strip was sutured to the edge of the flail portion of the mitral valve and the other end secured to the ventricular wall below the valve under proper tension to bring the everting edge of the mitral leaflet down into normal relationship with the opposing leaflet insuring normal valve closure.

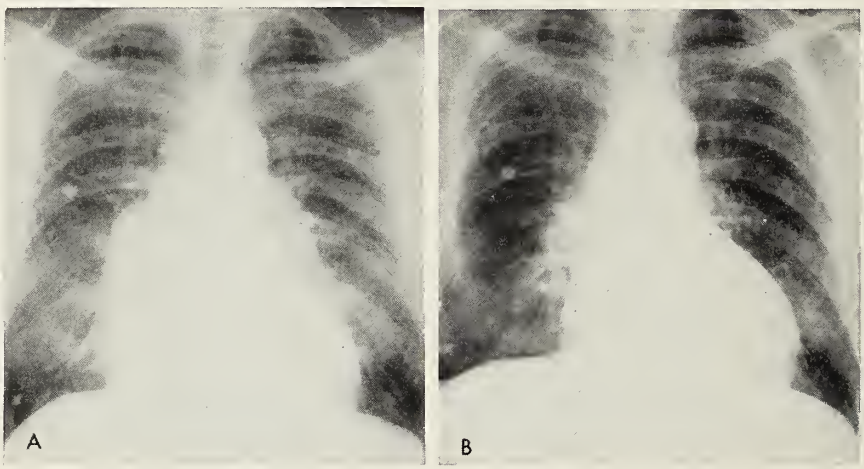


Fig. 4. (A) Chest radiograph of 60-year-old farmer, well until sudden onset of orthopnea, pulmonary edema and systolic murmur, due to ruptured chordae tendineae. Lung fields reveal congestion. Heart slightly enlarged.

(B) Chest radiograph one month after repair of ruptured chordae as in Figure 5. Note reduction of pulmonary congestion.

the heart from which the mitral valve leaflets are supported. Distention of the annulus increases the area of opening the mitral valve tissue must close. As the surface area of the leaflets is limited, a critical point of expansion is reached where the valve leaflets can no longer close completely and regurgitation results. Regurgitation leads to further atrial and ventricular enlargement increasing the insufficiency. This fatal spiral may be interrupted by a surgical technique

Combined Mitral Insufficiency and Stenosis

Thirty-five patients with a mixed lesion (mitral stenosis and insufficiency) of the mitrail valve were operated on with three deaths, two occurring in patients who had severe disease of the tricuspid valve. Calcification was present in approximately one-half of these patients. Mitral regurgitation associated with mitral stenosis is often reduced by the correction of the stenosis which provides better movement and approxi-

mation of the leaflets. The chordae do not attach directly to the free edge of the valve but approximately three millimeters back from the edge. Freeing the chordae tendineae from adhesions binding them to the free edge of the valve leaflet increases the amount of valve tissue available for closure. This maneuver also has the effect of lengthening the chordae tendineae.

Associated Valvular Disease

Thirty patients in this series of 100 undergoing mitral valvuloplasty had associated serious valve dysfunction of the aortic or tricuspid valves or both. Ten patients, all of whom were classified as functional Class IV, failed to survive, making a mortality figure of 33 per cent. The presence of multiple valve disease poses a greater operative risk, as the cardiac reserve is reduced and the patients are frequently decompensated at time of operation. Emphasis is placed on careful diagnostic procedures measuring gradients across all valves. This requires both left and right heart catheterization. Mitral stenosis or insufficiency may modify the auscultatory and hemodynamic findings of aortic valve disease. The tricuspid valve in particular warrants careful attention as diastolic gradients in tricuspid stenosis are not spectacular but of low magnitude. Tricuspid insufficiency persisting after the restoration of cardiac compensation indicates a pathologic condition of the tricuspid valve and cannot be regarded as relative valvular insufficiency (Fig. 6). Recognition of significant aortic or tricuspid valvular dysfunction enables the surgeon to plan an approach which will permit exploration of all malfunctioning valves. Failure to recognize associated valvular lesions and carry out their correction carries the risk of operative failure and perhaps the patient's death.

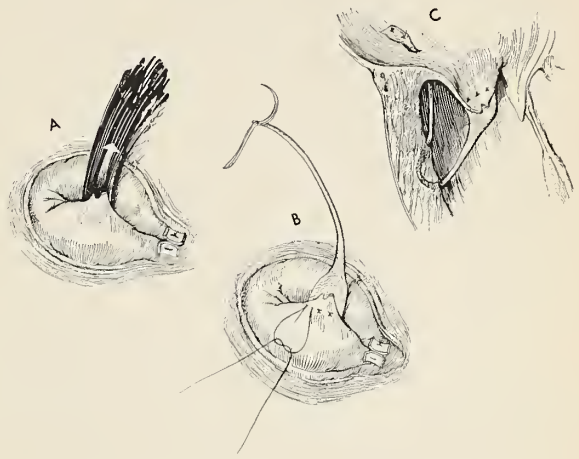


Fig. 5. (A) Ruptured chordae tendineae or papillary muscle resulting in flail leaflet of mitral valve producing reguritation.
(B) Sculptured Teflon chordae sutured to ventricular surface of everting edge of mitral valve.
(C) Other end of prosthetic chordae anchored deep in ventricular wall, brought up through mitral valve annulus and sutured to atrial wall. Proper tension being applied to anchor flail leaflet.

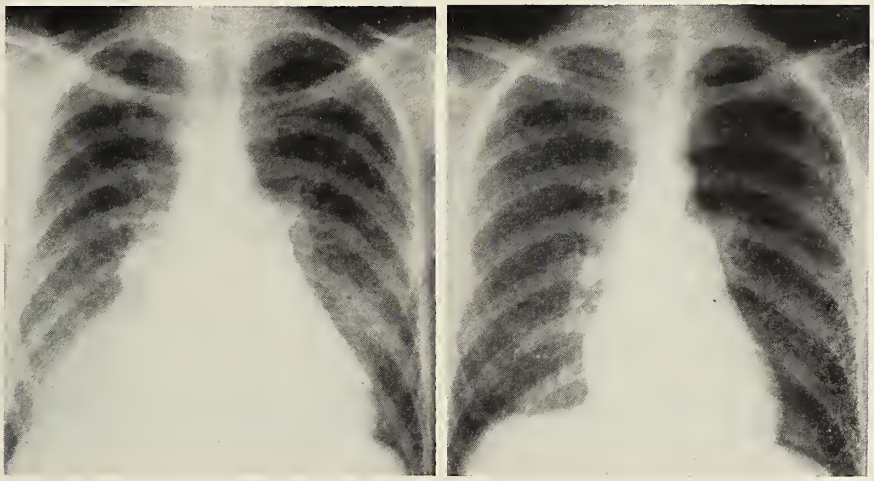


Fig. 6. (A) Chest radiograph of 21-year-old man with severe mitral stenosis and tricuspid insufficiency.
(B) Chest radiograph showing heart size three months after open mitral vavuloplasty and tricuspid annuloplasty to correct tricuspid insufficiency.

A comprehensive report on mitral valve surgery would be incomplete without some mention of total valve replacement. Approximately 10 per cent of all valves requiring correction will be so severely diseased as to justify excision and replacement with a prosthetic valve. Successful prostheses have been in use for too short a time to make a proper evaluation of their long

term benefits. As considerable improvement in function of the destroyed mitral valve has been obtained by careful valvuloplasty technique with a relatively low mortality we have been reluctant to use a mitral valve prosthesis. As mitral valve prostheses are improved their application will undoubtedly increase.

Summary and Conclusions

Use of the transventricular dilator has improved the results of closed operation upon mitral stenosis without increasing the mortality. Its indication is reserved for pure mitral valve stenosis without insufficiency or associated valvular disease.

Open mitral valvuloplasty will play an increasingly prominent role in the surgical treatment of mitral valve disease on the basis of the superior results possible in all disorders of the mitral valve. Thorough knowledge of the mitral valve anatomy and accurate assessment of the nature of valve dysfunction are essential for success.

One hundred patients have undergone open mitral valvuloplasty for the following indications: (1) mitral valve insufficiency, (2) unsatisfactory valvuloplasty by the closed technique or recurrent stenosis, (3) atrial thrombosis, embolic history, or severe valve calcification, (4) multiple valve disease, (5) congenital mitral valve stenosis, and (6) functional Class IV patients in cardiac failure due to mitral stenosis. Ten deaths occurred in the series of 30 patients who had multiple valve disease. There were no deaths in a series of 23 patients with mitral stenosis who had no associated valvular disease. Six deaths occurred out of 70 patients with mitral disease not in combination with other valvular disorders for a mortality of 8 per cent. It is expected that this mortality figure will be reduced as better risk patients are accepted for open operation, now that the superior benefits of this approach have been demonstrated.

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Warning Issued for Canadian Drug

Sufferers of arthritis were warned recently by the Food and Drug Administration that the drug Liefcort, which is being obtained from Canada, is imminently dangerous and may not legally be imported into the United States.

FDA Commissioner George P. Larrick said that Federal officers are detaining importations by persons who are obtaining the drug in Canada as a result of reading about it in a national magazine article last May. He said that reports of serious reactions to the drug are reaching the Food and Drug Administration. These include severe uterine bleeding.

Sodium and Potassium Abnormalities In Hypertension

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MANY abnormalities of sodium and potassium metabolism have been described both in human essential hypertension and in experimental hypertension of animals.[1,2] These complex interrelationships between electrolyte concentrations and the level of the blood pressure have been the object of extensive investigation. Most studies, such as those presenting the increased sodium, potassium and water contents of the arterial wall of hypertensive man or animals, or those dealing with the augmented excretion of sodium chloride or water loads by the hypertensive kidney, suggest that these alterations of electrolyte metabolism are the result, rather than the cause, of the elevated blood pressure. However, certain investigators have stressed evidence which points rather directly to the causal role of the intake of excessive amounts of sodium chloride, both in essential hypertension and in experimental hypertension.

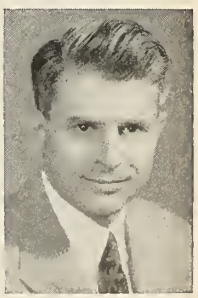
Dahl has found on the basis of population surveys that high salt intakes correlate directly with elevated blood pressures.[3] We have attempted to reproduce this type of study by means of careful questioning of normotensive and hypertensive patients as to the amounts of sodium chloride which they add to their food. No association was evident between the stated salt intake and the level of the blood pressure.[4]

Also in this study and in a previous one, no direct relationship was found between the serum sodium level and the height of the blood pressure.[5] Nevertheless, support for the theory that excessive salt intake is of etiologic importance in respect to hypertension has been derived from the experimental animal work done by Meneely, in which increased amounts of sodium chloride in the diet correlate directly with the development of elevated blood pressure levels in rats.[6] In our laboratory, however, rats have been fed similarly excessive amounts of salt in food for 15 months without showing any increase in blood pressure.[7] A finding of considerable interest in these normotensive salt-fed rats was the presence of increased amounts of sodium, potassium and chloride in their aortas; a situation which quite consistently has been found in hypertensive rats.

Although incorporating salt in food does not uniformly produce hypertension, the administration of sodium chloride solutions to rats in place of drinking water, a device utilized previously by several investigators, is a more successful method of provoking a rise in the blood pressure.[8] In such animals, we found a consistent increase in the sodium, potassium and chloride contents of aorta, although at the time of sacrifice there was no association evident between blood pressure elevation and these electrolyte changes. Koletsky has pointed out that the morphological damage seen in the blood vessels and kidneys of rats having salt hypertension differs from that which is present in essential hypertension of man.[9] He has also noted in certain instances that this structural change may be completely dissociated from the presence of high levels of blood pressure.

Although there is equivocal evidence for a causal role of salt in human essential hypertension, there is overwhelming documentation that restriction of the sodium intake frequently alleviates both essential hypertension in humans and experimental hypertension in animals.[10] Furthermore, natriuretic agents often exert an antihypertensive effect. Thus, decreasing the dietary sodium content and administering benzothiadiazine drugs are useful tools in the treatment of hypertension.[11] It is provoking that we still do not know

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how thiazides exert their antihypertensive effect when they are given over a prolonged period of time. Chlorothiazide administration promptly causes increased renal excretion of sodium, chloride and water.[12] Because of this, hypertensive patients have a decrease in their plasma volume and cardiac output within a few days and their blood pressure falls. After a month of such therapy, however, the plasma and extracellular fluid volumes and total body sodium return to normal, but the blood pressure remains at a lower level.[13] It has been suggested that the thiazides may act by directly altering the electrolyte and water content of the arteriole. However, no changes in arteriolar sodium, potassium and water were found in rats given chlorothiazide for nine weeks.[14] An acute reduction in plasma potassium concentration through an extrarenal mechanism of action of chlorothiazide was postulated, but recent investigation has shown that this does not occur.[15] Indeed, the lowering of the serum potassium which commonly is seen during therapy with thiazide drugs does not appear to be associated with any depletion of the body's stores of potassium.[16] One must conclude that at the present time it is not known how the benzothiadiazine group of drugs brings about lowering of the blood pressure in the weeks and months after the diuretic phase of the first few days following commencement of therapy has passed. There is no good evidence that this late antihypertensive effect is related to any alterations in electrolyte metabolism brought about by the thiazides.

Another interesting electrolyte abnormality in hypertension is the excretion of a greater percentage of a sodium chloride load by the kidneys of the hypertensive patient or animal.[17,18] A similar phenomenon relating salt and water excretion to perfusion pressure can be demonstrated even in an isolated kidney. The amount of sodium chloride excreted is directly proportional to the level of the blood pressure. This appears to be the result, rather than the cause, of the hypertension. This physiologic relationship, however, is not an isolated academic curiosity, but is clinically useful, as it is the basis of the Howard test for detecting unilateral renal arterial occlusive disease, a potentially curable type of hypertension.[19] The ischemic kidney, that is, the kidney perfused under lower pressure because of renal arterial obstruction, can be identified because it excretes a reduced urine volume which contains a reduced sodium concentration.

Summary

Alterations in sodium and potassium metabolism are closely entwined with the level of the blood pressure, both in the hypertensive patient and in the experimentally hypertensive animal. Although it is not established that an increased sodium chloride intake is etiologically related to human essential hypertension, salt-fed animals do develop elevated blood pressure and the administration of additional amounts of sodium chloride will further the production of other varieties of experimental hypertension, such as the renoprival or metacorticoid types. Conversely dietary sodium restriction or the use of natriuretic agents will alleviate hypertension.

The hypertensive state in itself appears to produce alterations in sodium and potassium metabolism. Aorta and arterioles from hypertensive man and animals contain increased amounts of sodium, potassium and water. The kidney excretes sodium and water in amounts which are directly proportional to the pressure which is perfusing it.

From these and other observations, it is obvious that electrolyte metabolism and vascular reactivity are intimately interrelated. Many of these relationships remain obscure and require further clarification; some are of great physiological interest; a few have reached the level of clinical application.

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Renal-Vascular Disease as a Cause of Hypertension

Selection of Patients for Aortographic Studies

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IT IS UNCERTAIN how frequently renal vascular disease is a cause of apparent essential hypertension. Furthermore, there is disagreement concerning the indications for performing diagnostic studies such as aortography and split renal function tests in hypertensive patients.[1,2] In an effort to answer these questions, one year's experience in the hypertension clinic at the University of Michigan Medical Center has been reviewed. Of the 500 new patients seen during the period in question, 310 had hypertension of sufficient severity to warrant intravenous pyelography. Sixty-five of these individuals subsequently underwent aortographic examination; 29 per cent of these subjects, or 6.1 per cent of the patients undergoing pyelography, were shown to have renal vascular lesions.

Of the 65 patients studied by aortography, 48 were performed because of one of the following criteria: Reported onset of hypertension before the age of 36 or after the age of 55; the presence of flank pain prior to the development of hypertension, suggesting renal infarction; the presence of an audible abdominal murmur, or an abnormal intravenous pyelogram. Seventeen additional severely hypertensive subjects were examined without such historical or pyelographic indications.

Criteria for Aortography

1. *Age.*—Any patient with severe hypertension appearing before the age of 36 or after the age of 55 was considered a potential subject for aortography. Of 17 patients examined solely because of this criterion, only one had an abnormal aortogram. A review of our experience (Table I) indicates that renal vascular disease occurred with equal frequencies in all age groups, excepting in the over-55 category, where the number of patients studied was too small to warrant valid conclusions.

TABLE I. FREQUENCY OF VASCULAR DISEASE BY AGE GROUPS

Age	Under 35	35-55	Over 55
Number cases	26	33	6
Aortogram positive	7 (27%)	9 (27%)	3 (50%)
Aortogram negative	19 (73%)	24 (73%)	3 (50%)

2. *History.*—A history of flank pain or other renal disturbances immediately preceding the onset of hypertension was also an indication for aortography. Of the five patients having this symptom, four were subsequently found to have renal vascular occlusive disease by aortography. A history of flank pain was elicited in 21 per cent of patients with aortograms subsequently proven abnormal, but noted in only 4 per cent of those with negative renal arterial studies.

3. *Abdominal Murmur.*—An abdominal murmur was heard in 11 out of the 65 patients studied; seven of these were subsequently found to have renal arterial occlusive disease but in only one case did this finding alone lead us to a renal vascular lesion. Abdominal murmur was found in 37 per cent of cases with renal vascular lesions, while it was found in only 9 per cent of patients with normal renal arteries. If sufficient attention early in the study had been devoted to listening under ideal conditions, this sign might have been elicited even more frequently. We would agree with

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a recent report[3] suggesting that a high percentage of cases of renal vascular disease will have such a finding.

4. *Intravenous Pyelogram.*—Of the four criteria in question, the intravenous pyelogram has given the highest percentage of positive results. A specialized technique is employed, whereby an intravenous injection of 30 cc. of 50 per cent Hypaque is rapidly given and radiographs taken at 30 seconds, 3, 5, 10, 15, and 30 minutes. The ischemic kidney will usually demonstrate one or more of the following pyelographic abnormalities:

1. Unequal size of the kidneys as seen in the nephrogram phase (30 seconds) or in subsequent pyelogram films. A difference of more than one centimeter in length is regarded as abnormal.

2. Unequal excretion of contrast material. Generally speaking, in the dehydrated patient we expect to see a delay of excretion or a less dense pyelogram on the involved side in the 3 and 5 minute films,[4] and a prolonged excretion or more intense pyelogram on the involved side in the 15 and 30 minute films. This is due to slower urine flow on the ischemic side, with increased water reabsorption and therefore increased solute concentration.[5,6] If the disease is so far advanced that there is virtually no blood flow to the diseased kidney, the concentration of contrast material will be less dense on the involved side throughout the entire pyelographic series.

3. A persistant notching of the ureters, probably attributable to an increase in collateral circulation to the involved kidney through the ureteric vessels.

4. A discrepancy in the contour of the nephrogram, with or without calyceal distortion in the pyelograms. These findings are often seen with segmental infarction of the kidney.

As seen in Table II, 89 per cent of the patients with renal arterial lesions had abnormal intravenous pyelograms, a finding seen in only 20 per cent of those patients with normal renal arteries. Figure 1 presents an example of the pyelographic abnormalities commonly associated with occlusive renal vascular disease.

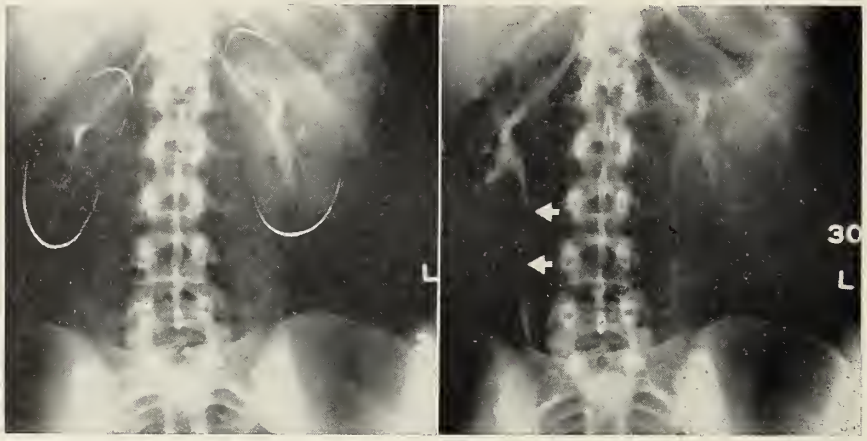


Fig. 1. Intravenous pyelogram in a patient with stenosis of the right renal artery.
Note: (1) reduction in size of the right kidney, (2) decrease in concentration of contrast medium on the right at three minutes, (3) increase in concentration of contrast medium on the right at 30 minutes, (4) "notching" of the right upper ureter (arrows).

TABLE II. PERCENTAGE (+) CRITERIA IN HYPERTENSIVE PATIENTS

Aortogram	Number Cases	History of Pain	Abd. Bruit	(+) IVP
Positive	19	21%	37%	89%
Negative	46	4%	9%	20%

Discussion

From the data presented, several points of interest have become apparent. Age alone is rarely useful in indicating a renal vascular lesion; a history of flank pain, suggesting unilateral renal vascular disease, is helpful. An audible abdominal murmur is likewise of considerable assistance in making a proper diagnosis. The murmur which is most likely to be associated with renal artery stenosis is high pitched and often quite faint. It may best be elicited by auscultation with a specially weighted obstetrical stethoscope or by one of the instruments which emphasizes high pitched murmurs. One or the other of us has frequently

missed these murmurs when listening in a ward with average noise level; we now consider it mandatory to listen in a quiet room before concluding that such a murmur is absent. The frequency with which such murmurs are found in hypertension, but are not associated with specific renal vascular lesions, is at present under study.

The intravenous pyelogram, performed by a modified technique and utilizing refined criteria for abnormality, is the most helpful of the screening procedures.[7] The pyelogram was abnormal in 89 per cent of patients in this study subsequently shown to have occlusive renal vascular disease, while being falsely positive in only 20 per cent of patients with normal renal arteries.

Our experience is summarized in Table III; it is seen that only one of the 19 cases would have been missed if the three criteria of history, abdominal murmur, and abnormal pyelogram were used in deciding the indication for aortographic investigation; on the other hand, if these criteria were applied with equal strictness to the remainder, only 29 per cent false positive indications for aortography would have occurred. It is noteworthy that 12 cases were negroes; and that none of the cases with positive renal vascular lesions were of the negro race.

TABLE III. FREQUENCY OF "SIGNIFICANT" FINDINGS IN ALL CASES SUBMITTED TO AORTOGRAPHY

	Murmur	Renal History	I.V.P.	Colored		White		Number Cases
				M	F	M	F	
Aortography Negative	0	0	0	4	5	14	10	33
	+	0	0	0	1	2	1	4
	0	0	+	2	0	6	0	8
	0	+	+	0	0	1	0	1
			Totals	6	6	23	11	46
Aortography Positive	0	0	0	0	0	1	0	1
	+	0	0	0	0	1	0	1
	0	0	+	0	0	4	3	7
	0	+	+	0	0	3	1	4
	+	0	+	0	0	3	3	6
			Totals	0	0	12	7	19

Conclusions

1. Of 500 new cases of hypertension seen in one year at the University of Michigan Medical Center, 310 were subjected to intravenous pyelography. Of these, 6.1 per cent showed renal vascular abnormalities as shown by subsequent aortography.

2. 31 aortographic examinations were performed because of specific indications (abnormal history, abdominal murmur, abnormal intravenous pyelogram). In 61 per cent of these cases, a renal arterial lesion was demonstrated.

3. In 34 cases, examination was performed because of severe hypertension alone, without any of the above criteria. Only one case of renal vascular abnormality was identified in this group.

4. The most useful criterion is an abnormal intravenous pyelogram. It is emphasized that a specialized technique for performing the procedure and special criteria in reading the films are necessary to yield this high degree of diagnostic accuracy.

5. Patients without a significant history, an abdominal murmur, or a pyelographic abnormality rarely have renal arterial occlusive disease. This condition likewise appears to be uncommon in patients of the negro race.

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Surgical Treatment of Interatrial Septal Defects

Experience with 216 Patients

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CLOSURE of a persistent opening between the right and left atrial chambers has become a commonplace surgical procedure on the operative schedules of most active cardiac surgical services. Although present-day management, with but few exceptions, is accomplished with the assistance of extracorporeal circulation, several methods have been tried since the initial success with a direct suture method by Lewis[1] and Swan[2] using hypothermia. A variety of ingenious closed techniques including the atrial well,[3] lateral atrio-septopexy,[4] circumclusion suture,[5] and posterior septopexy using a two-pointed needle[6] were subsequently employed but each proved inadequate in the presence of complicated defects. A welcome transition occurred with the development of dependable pump oxygenator systems which permitted safe direct repair of the complicated ostium primum defects as well as the more simple secundum varieties.

Two hundred and sixteen patients have undergone closure of an atrial septal defect at Henry Ford Hospital between March, 1953, and December, 1960. Hypothermia (13 patients), posterior atrio-septopexy with a two-pointed needle (102 patients), and finally open repair with a pump oxygenator (101 patients) have been employed in this series of operative procedures.

Information pertaining to surgical anatomy and the relationship of age and pulmonary artery pressure to operative mortality have been derived from the entire group of patients treated by all three methods, whereas a more detailed analysis of the 101 open-heart repairs using extracorporeal circulation will be presented.

Diagnostic Studies and Indications for Repair

Following completion of the routine physical examination, fluoroscopy with barium swallow and electrocardiographic studies, all patients have undergone right heart catheterization.* Angiocardiography and cinefluorography have been performed when indicated if a complicated defect was suspected. In the Division of Pediatric Cardiology,** catheterization from a leg vein has been found particularly helpful in assessing the size and position of the defect when the catheter is manipulated through the atrial septum and into the left side of the heart. Radiopaque die injection into the left ventricle may be accomplished at that time allowing demonstration of mitral insufficiency such as may accompany ostium primum defects. Catheterization from the left arm may give additional information about the presence of a left superior vena cava. Although most atrial septal defects may be diagnosed without these extensive physiologic studies, the rewards accruing from this type of comprehensive evaluation are enjoyed by the operating surgeon who counts on finding the type of lesion predicted by his cardiologic colleagues.

When physiologic studies demonstrate a definite left-to-right shunt, repair of the defect is generally advised. Since the detrimental effects on the pulmonary vasculature resulting from increased blood flow develops more slowly when due to a low pressure atrial shunt than in the presence of a high pressure ventricular defect, elective repair may be safely postponed in most small children until after the age of four or five years (Fig. 1). Exceptions to this policy are encountered in small patients with large secundum defects, those with primum defects and accompanying mitral insufficiency and in the case of common atrioventricular canal lesions where mounting pulmonary vascular resistance may demand earlier operation.

Two problem situations are occasionally encountered when evaluating atrial defects in adult patients. A young adult with a small but definite secundum

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*Adult catheterization studies under the direction of Dr. Ellet Drake of the Cardiology Division.

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defect, minimal signs of right ventricular strain as manifested by normal right heart pressures and early electrocardiographic changes constitutes a highly elective indication for operative closure of an atrial defect. The demonstrated safety of open repair by experienced operating teams as shown by this and other series[7,8] of surgically treated patients in this category indicates that closure of this type of defect should be advised to prevent the inevitable slow progression of cardiopulmonary changes which must accompany a shunt. The adult patient in the fifth or sixth decade who has developed marked cardiac enlargement, high pulmonary artery pressure accompanied by increased resistance and congestive heart failure constitutes another difficult decision at best (Fig. 2 a, b). These patients challenge the ability of all concerned, especially during the trying postoperative phase when airway management may require tracheotomy and occasionally the assistance of a respirator. Difficult cardiac arrhythmias are not infrequent and may demand constant and forceful attention. We have not regretted advising repair in this group of patients when pre-operative evaluation has shown that a significant left-to-right shunt remains. Operative treatment is not recommended when systemic desaturation is present or persists after treatment of congestive failure.

latter term, first suggested by Watkins and Gross[9] includes ostium primum defects as well as both partial and complete atrioventricular canal lesions. Although

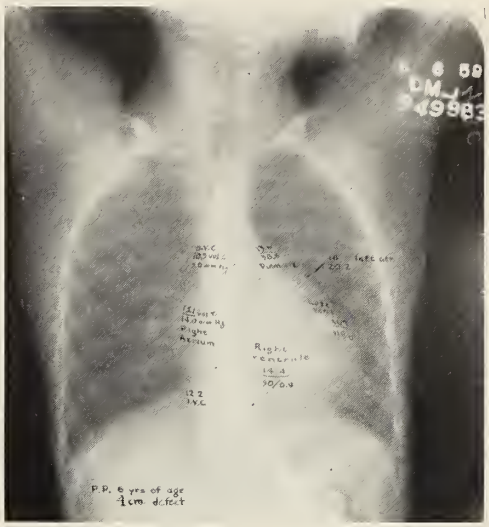


Fig. 1. Typical chest roentgenogram findings in a six-year-old child with a 4 cm. secundum defect. The pulmonary vasculature is increased and there is minimal cardiomegaly due to right ventricular enlargement. The pulmonary artery pressure is in the high normal range. This uncomplicated defect in this age group is considered an ideal indication for surgical closure.

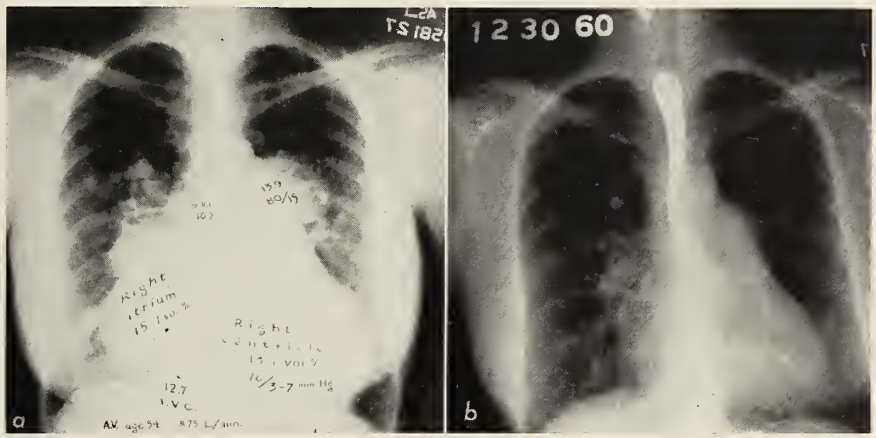


Fig. 2. (a) Chest roentgenogram and catheterization findings in a 54-year-old patient with chronic congestive heart failure due to a large secundum defect. In spite of pulmonary hypertension, a massive left-to-right shunt remains.

(b) Postoperative chest roentgenogram six months after closure of the defect using extracorporeal circulation. The pulmonary artery pressure at this time has fallen to 35 mm. Hg. Tracheotomy and respirator assistance were required during the first postoperative week.

Surgical Anatomy

In the entire group of 216 patients, 183 were found to have defects of the ostium secundum variety, and 33 to be endocardial cushion defects (Fig. 3). The secundum defects may be sub-divided into several types, the variety of surgical significance is the combination of anomalous pulmonary venous drainage from the right lung into the superior vena cava and

an accompanying high, posterior secundum defect (sinus venous type). This combination was encountered on 23 occasions and was managed by suture partition of the superior vena cava to shunt the anomalous veins into the left atrium with simultaneous closure of the defect.

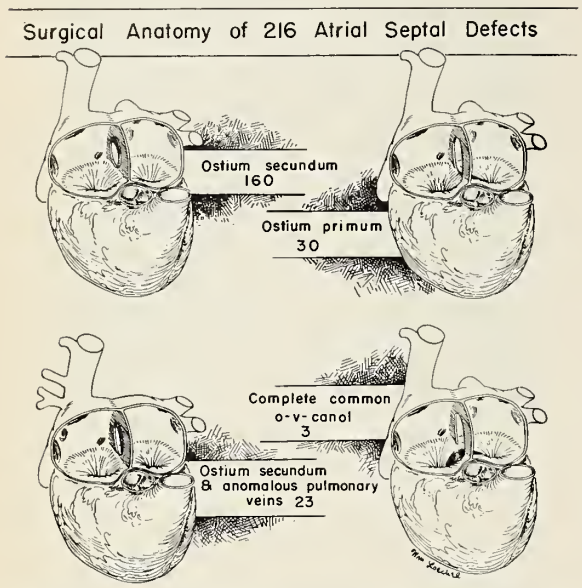


Fig. 3. Incidence of various types of atrial defects encountered at the time of repair in 216 patients.

Of 33 defects classified as endocardial cushion in type, three were complete common atrioventricular canal lesions composed of combined atrial and ventricular defects with clefts in both the mitral and tricuspid valves. These defects exhibited the manifestations and course of high pressure shunts due to their ventricular components and associated mitral insufficiency. The remaining group of 30 cases was composed of a variety of anatomic types; however, the majority were large, low septal defects accompanied by mitral valve clefts (ostium primum defects).

Surgical Management

Since 1958, all atrial defects have been closed at the Henry Ford Hospital using extracorporeal circulation with a previously described teflon coated, vertical, stainless steel, bubble oxygenator.[10] With the exception of severe types of endocardial cushion defects where both atriotomy and ventriculotomy may be required, the repair has been carried out with the heart beating. Competence of the mitral valve is assessed by digital exploration prior to initiating perfusion. Arterial and superior vena cava pressure monitoring have frequently been employed, the latter having proved particularly useful to avoid obstructive venous hypertension when managing a left superior vena cava or in the case of partitioning the superior vena cava for anomalous pulmonary venous drainage. Providing there is a demonstrated communication between the two superior vena cavas, test occlusion of the left cava may be tried and maintained during perfusion if the venous pressure does not rise significantly. When the left superior cava proves vital to venous drainage as manifested by a marked rise in monitored venous pressure during occlusion, the atrium is opened during by-pass with temporary left cava occlusion following which a third atrial line or the cardiotomy suction tip is inserted into the coronary sinus to return this portion of the venous drainage to the extracorporeal circuit. Prosthetic patches of compressed polyvinyl sponge were frequently used when required to avoid tension on suture lines. Suture of anterior mitral leaflet clefts was carried out with fine silk when this was found to accompany ostium primum lesions.

Results

Since we have observed late mortality in the presence of a successfully closed defect in only three instances (two patients were adults with markedly increased pulmonary vascular resistance and one patient was a child with heart block), mortality results may essentially be discussed from the standpoint of operative mortality. Two aspects of the latter will be analyzed showing the relationships to age and pulmonary hypertension in the entire group of 216 patients.

Age.—As might be expected in this era of extensive physiologic cardiac studies, the majority of atrial septal defects are diagnosed while the patient is an infant or adolescent child. In this series of 216 patients, 48 per cent were under 10 years of age at the time of surgical repair and 67 per cent were under 20 years. Almost one-half (eight of 19) of the total operative deaths occurred in small children under the age of two years. Age should not be considered as the sole factor accounting for the relatively high mortality in these patients as the presence of large shunts and complicated forms of ostium primum type defects had usually prompted early operation in this group. There were 32 patients past the age of 40 years and seven beyond 50 years of age, indicating that patients were not refused operative repair on the basis of age alone. Although many past 40 years of age with pulmonary hypertension posed trying

problems in the postoperative management of pulmonary insufficiency and stubborn arrhythmias, there was but one operative death among them (Table I). Four of the 31 survivors required tracheotomy and respirator assistance during a protracted and difficult postoperative period. All four of these patients, however, progressed to complete recovery with return of pulmonary artery pressures to near normal levels. Several in this age group were incapacitated to the point of confinement to bed by congestive heart failure but demonstrated a gratifying postoperative return to full activity.

Pulmonary Hypertension.—The measured pulmonary artery pressure reflects in part the degree of pulmonary vascular damage which has developed. Although other approximations of pulmonary arteriolar

TABLE I. OPERATIVE MORTALITY BY ALL METHODS OF ATRIAL SEPTAL DEFECT CLOSURE ACCORDING TO AGE
(216 Patients)

Age	Number Patients	Deaths
0-10	103	13 (8 under 2 yrs.)
11-20	42	4
21-30	17	0
31-40	22	1
41-50	25	0
51-60	7	1

resistance may be calculated, the prognostic significance of the level of pulmonary hypertension accompanied by an estimation of existing pulmonary blood flow, is apparent when the 216 patients are grouped according to pulmonary artery pressures. When normal pulmonary artery pressures were measured, there was but one death in 51 patients (1.8 per cent). With the finding of a mild to moderate elevation of pulmonary artery pressure (25 to 75 mm. Hg.) the operative mortality rose to 15 in 140 patients (10.7 per cent). When the pulmonary artery pressure was between 75 mm. Hg. and full systemic levels, the operative hazard increased to 15 per cent in a comparatively small group of 20 patients (Table II). Only two patients in the group of 160 with pulmonary artery hypertension failed to show regression in their pulmonary vascular changes. Both of these patients ultimately succumbed to progressive congestive heart failure in spite of an intact closure as observed at necropsy.

Extracorporeal perfusion has been used exclusively for closure of atrial defects in the last 101 patients (Table III). Reflecting the relative safety of this method for repair of uncomplicated ostium secundum lesions, four operative deaths have occurred during 81 operations. Two mortalities were in patients previously operated upon by a closed method, one patient was an adult with a systemic level of pressure in the pulmonary artery and small left-to-right shunt, while the fourth underwent a difficult repair of associated

TABLE II. RELATIONSHIP OF OPERATIVE MORTALITY TO PULMONARY ARTERY PRESSURE
216 operations for atrial septal defect

Systolic Pressure in mm. Hg.	Number Patients	Deaths
>25	51	1 (1.8%)
25-75	140	15 (10.7%)
<75	20	3 (15.0%)

Preoperative measurements not available in 5 patients.

anomalous venous drainage, which probably contributed to the cause of death. There was no operative mortality among the patients with an ostium secundum defect accompanied by a normal pulmonary artery pressure which was repaired primarily with extracorporeal perfusion. The results attained in the repair of endocardial cushion defects are less encouraging with nine deaths occurring in 20 operative repairs, using extracorporeal circulation. Three of the deaths followed repair of atrioventricular communis lesions in small children with marked pulmonary hypertension. Another death occurred on the seventh postoperative day from surgically induced heart block and

TABLE III. OPERATIVE MORTALITY IN 101 OPEN-HEART OPERATIONS FOR CLOSURE OF ATRIAL SEPTAL DEFECT

	Number Patients	Operative Deaths
Ostium secundum	81	4* (4.9%)
Ostium primum	17	6
Endocardial cushion defects (A-V communis)	3	3

*2 recurrent cases from closed repair:
1 patient with pul. art. pressure of 90 mm. Hg.
1 patient with anomalous venous drainage.
There was no operative mortality accompanying repair of 77 uncomplicated secundum type defects.

the remaining five followed closure of ostium primum lesions in children under two years of age with pulmonary hypertension.

As may be demonstrated by the results of closing uncomplicated atrial secundum defects, the operative hazard incident to open repair with the pump-oxygenator is now related to the severity of the anatomical defect and accompanying cardiopulmonary

changes rather than the technical aspects of extracorporeal circulation.

Summary

1. Among 216 patients undergoing closure of atrial septal defects, 183 were of the ostium secundum type and 33 of the endocardial cushion variety. Since 1958, all atrial septal defects have been repaired with the assistance of extracorporeal perfusion.

2. The surgical anatomy encountered at operation is presented and the management of aspects of extracorporeal perfusion peculiar to atrial septal defect closure are discussed.

3. An analysis of the relationship of age to surgical results reveals that the greatest hazard from operative repair exists in children under the age of 4 years with complicated defects where rapidly advancing pulmonary vascular changes prompt early closure. A low operative mortality accompanied repair of atrial defects in patients over 40 years of age. There were 31 survivors among the 32 patients in this group and all demonstrated progressive postoperative clinical improvement.

4. Pulmonary artery hypertension was present in 160 patients, 20 of whom were regarded as severe. Provided that a left-to-right shunt persisted and systemic desaturation was not present, highly satisfactory results can be expected in this group. Two patients among the 160 did not show progressive postoperative improvement.

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Prize Essays

The Council on Undergraduate Education of the American College of Chest Surgeons offers three cash awards to be given annually for the best contribution prepared by undergraduate medical students on any phase of the diagnosis and/or treatment of chest diseases (heart or lungs).

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Chronic Orthostatic Hypotension

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A PATIENT is said to have orthostatic hypotension when he shows a marked fall in blood pressure after a change from the recumbent to the erect position. One or a combination of the following mechanisms generally accounts for the drop in blood pressure: (1) decreased peripheral resistance, (2) diminished cardiac output, (3) decreased venous return and drop in effective circulating blood volume. Table I gives a complete list of neural-hormonal blood pressure regulators.

The typical hemodynamic responses that occur in normal subjects tilted 75 degrees in the upright position are an immediate but transient fall in systolic blood pressure with a gradual recovery to or above control level, a sharp but slight rise in the diastolic pressure so that the pulse pressure is reduced, and an acceleration of the heart rate. The tachycardia and the increases in arteriolar constriction and presumably in venomotor tone are mediated through the sympathetic nervous system through reflex mechanisms by the pressor sensitive areas (carotid sinus and aortic arch). The cardiac output is 25 to 30 per cent less than that in the recumbent position because of pooling of blood in the dependent portions of the body (splanchnic area and legs) and reduction in venous return.[2,3,4] There is also a slight but significant rise (1.5-2.0 ug/1) in the plasma norepinephrine concentration.[5] The norepinephrine increase represents delayed "spill over" into the blood from the effector site in the arteriolar walls, the peak level not being achieved until from two to 30 minutes after assuming the upright position.

Some otherwise normal individuals when tilted erect on a table will faint. Adams and Harrison[6] state that in these patients the blood pressure falls slightly at first and then stabilizes at a *lower* level. The blood pressure falls precipitously shortly thereafter, when these compensatory reflexes fail. In other patients (for example, after surgical sympathectomy and in the unusual condition of chronic orthostatic hypotension), the blood pressure never stabilizes after tilting but falls steadily to a level at which cerebral circulation cannot be maintained adequately. Cardiac output may be decreased as much as 50 per cent of the recumbent values

TABLE I. NEURAL-HORMONAL FACTORS REGULATING BLOOD PRESSURE[1]

I. *Vascular Muscular Tone Affected by:*
1. Sympathogenic catechols (norepinephrine constricting, epinephrine prevailingly dilating).
2. Mineralocorticoids, potentiating contractile vascular cell responsiveness to catechols (probably via influence on intracellular-extracellular cation gradient and electrical cell membrane potential).
3. Glucocorticoids, potentiating vascular reactivity to catechols (probably via influence of carbohydrate metabolism of vascular cells).
4. Thyroid hormone, potentiating vascular reaction to catechols (probably via inactivation of catechol-destroying aminoxidase).
5. VEM, potentiating epinephrine sensitivity of mesenterial metarterioles.
6. Acetylcholine, liberated at parasympathetic and certain sympathetic postganglionic nerve endings (generally dilating).
7. Histamine, liberated by sympathetic fibers (generally dilating).

II. *Cardiac Output Affected by:*
1. Sympathogenic catechols as stimulating (depolarizing) and, if present in excess, as hypoxia-producing, efficiency-impairing agents.
2. Vagal acetylcholine as inhibitory agent.
3. Adrenal corticoids (probably via influence on cellular cation gradient and carbohydrate metabolism).
4. Thyroid hormone as potentiator of catechol effects.

III. *Effective Circulatory Volume Affected by:*
1. Vascular muscular tone (see above), responsible for absence or presence of blood pooling.
2. Total plasma volume, regulated by adrenocortical influence on water retention and distribution.

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in these cases.[7] In some patients the diastolic blood pressure is maintained until just before the loss of consciousness and there is a normal rise in plasma norepinephrine. In other patients, there is a steady fall of both systolic and diastolic pressures, as well as an insignificant rise in plasma norepinephrine concentration.[5] The mechanism for the response in the first case is probably faulty venomotor tone in the presence of normal arteriolar vasoconstriction. This should not be confused with true postural hypotension, in which there is neuroadrenergic insufficiency, which may be central or peripheral (see below).

Symptoms are almost always produced in postural hypotension when the systolic blood pressure falls below 50 mm Hg,[8] although some patients develop symptoms at higher pressures. The predominant symptoms occur when the patient assumes the upright position and consist of weakness, blurring of vision, dizziness, pallor and sometimes syncope. Most notable, of course, is the abrupt blood pressure fall.

Chronic orthostatic hypotension is a special form of postural hypotension and is relatively rare. In these cases, there is rapid blood pressure drop upon assumption of erect posture, but there is *no* compensatory tachycardia, and there is *absence* of pallor, sweating, nausea or other symptoms. A triad of orthostatic hypotension, anhidrosis, and impotence has been suggested.[9] Frequent accompanying findings related to the central nervous system will be noted: tremors, Adie's syndrome or hyperreflexia. After loss of consciousness, recumbency restores adequate circulation to the brain, with a prompt return of consciousness.

Shy and Drager[10] believe that many of these patients with idiopathic orthostatic hypotension represent a syndrome with generalized nervous system involvement. The full syndrome is said to comprise: orthostatic hypotension, urinary and rectal incontinence, loss of sweating, iris atrophy, external ocular palsies, rigidity, tremor, loss of associative movements, impotence, the findings of an atonic bladder and loss of rectal sphincter tone, fasciculations, wasting of distal muscles, evidence of a neuropathic lesion in the electromyogram that suggests involvement of the anterior horn cells, and the finding of a neuropathic lesion in the muscle biopsy. They collected 40 cases in the literature which they feel meet their criteria and describe the findings at extensive necropsy of their most advanced case. Abnormalities were found in the autonomic ganglia, spinal cord, medulla, cerebellum, pons, midbrain, hypothalamus, basal ganglia (especially caudate nucleus), and frontal area of the cerebral cortex. The changes were generally of a degenerative nature. Their patients had signs and symptoms compatible with autonomic nervous system involvement and a Parkinson-like syndrome, manifested by rigidity, loss of associative movements, and a mask-like facies. It is believed that the selective and symmetrical nature of the CNS lesions, as well as absence of thromboses, points away from vascular occlusions secondary to hypotensive episodes as a cause. Similar changes have never been described in adults from hypoxia secondary to chronic orthostatic hypotension, although there is some similarity to changes associated with neonatal hypoxia.

There is some controversy over whether such a syndrome really exists. Schatz[11] reports that he has seen three patients with practically all of the above signs and symptoms and finds no reason to doubt its authenticity. We have also seen one case.

Symptoms are often apt to occur in the morning when the patient arises and lessen during the day. Attacks are generally more severe during hot weather and after exertion. The syndrome usually occurs after the age of 40 and is more common in the male patient. These patients often first are seen by urologists because of symptoms of urinary sphincter loss. Except for increase in nocturnal urine volume and slight nitrogen retention, laboratory studies are within normal limits. Mild anemia, low basal metabolic rate and a youthful appearance of the patients have also been described.[12] In the majority of cases the electrocardiogram is normal, although S-T segment depressions have been rarely described. The disease usually follows a chronic course, with gradual increase of the neurological symptoms.

Many interesting facts about this entity are to be found in Wagner's paper.[13] In 1925, Bradbury and Eggleston[14] were the first to describe idiopathic postural or orthostatic hypotension. Actually it is a rather rare condition, only 50 cases being found in the literature by Springarn and Hitzig in 1942.[15] A significant number of patients with diabetic neuropathy, tabes dorsalis, subacute combined sclerosis, tumor, syringomyelia or other brain stem or spinal cord lesions, or following encephalitis, have orthostatic hypotension.[12,16,18] A similar syndrome may also occur after extensive sympathectomies.[19]

In the past, two schools of thought regarding the pathogenesis of orthostatic hypotension have evolved. In 1940, MacLean and Allen[20] suggested the fall in blood pressure was a result of a decreased return of venous blood to the heart, secondary to a pooling of blood in the dependent portions of the body. They based this idea chiefly on the improvement obtained by treatment with the "head-up" bed, which they felt

either stimulated the reflex mechanism or produced an increase in the extracellular fluid of the lower extremities to counteract the increased hydrostatic pressure. Later, Stead and Ebert[17] concluded that the condition was the result of a loss of reflex vasoconstriction in response to a fall in arterial blood pressure secondary to some kind of disturbance in the sympathetic nervous system. They found that these patients do *not* pool more blood in the lower portions of the body, when standing, than do normal subjects. Most authors today feel that the evidence favors the latter concept, especially in view of the fact that orthostatic hypotension is seen in so many CNS diseases.[8,21,22]

A survey of the literature reveals that cases of orthostatic hypotension can be divided into two groups:[18]

1. Sympathicotonic group—postural hypotension is due to excess pooling of blood.

2. Asympathicotonic group—there is impairment of sympathetic reflexes.

The lesion in the latter group may be "central" (in the neuraxis above the level of the preganglionic neuron) or "peripheral" (in efferent pathways either pre- or postganglionic). The "peripheral" type of orthostatic hypotension is analogous to that seen in patients treated with guanethidine[23,24] or bretylium tosylate[25] for hypertension. Cases of asympathicotonic orthostatic hypotension may be secondary to some neurological disorder or apparently primary.

Barnett and Wagner[26] describe a case of the latter type in which there was limited loss of parasympathetic activity, as well as the widespread loss of sympathetic reflexes. A remarkable feature was the extreme sensitivity to some sympathomimetic amines (noradrenalin, phenylephrine and methoxamine) and lack of response to others (ephedrine, methamphetamine, mephentermine, et cetera). It was concluded from these and previous observations that the response of patients with orthostatic hypotension, to certain pressor amines, is because of a direct effect on vessels, while others act, at least partly, by preserving noradrenalin. The effect will depend on the sensitivity of the vessels and the amount of noradrenalin available for preservation.

Luft and Von Euler[27] studied the daily epinephrine and norepinephrine urinary content in two patients with postural hypotension. They found daily excretion of these catechol amines to be low in both cases. In addition, norepinephrine (1 mg. subcutaneously) relieved the patients of all signs of hypotension. The authors feel that there is a decreased ability of the adrenergic nerve endings to form norepinephrine in these cases. This condition is analogous to myasthenia gravis, where the motor nerves apparently do not produce effective amounts of acetylcholine. Benested and Boe[28] also noted low norepinephrine excretion in their case. Hickler and his group[5] at the Peter Bent Brigham Hospital have noted that the resting control level of plasma norepinephrine in three patients with a "peripheral" type of adrenergic insufficiency was at the lower limit of normal while the control level in three patients with a "central" type was at the upper limit of normal.

Other investigators have compared norepinephrine and hypertensin II, by intravenous drip, in the treatment of postural hypotension.[29] Norepinephrine was ineffective in moderate doses; larger doses caused cerebral vascular disturbances. Hypertensin II (angiotensin II) by prolonged intravenous drip (4-6 ug/min) prevented the orthostatic hypotensive response, but did not affect the cerebral vasculature. It was concluded that the two drugs have different modes of action. Using spirally cut strips of rabbit thoracic aorta, Helmer[30] demonstrated that moderate doses of norepinephrine caused shortening almost immediately, the contraction being completed in two to four minutes. Angiotensin II, in doses of 0.025 Goldblatt units, showed a delay of two to four minutes before shortening began.

Razavi, Nelson and Picchi[39] found that norepinephrine did not elevate blood pressure in those patients with central autonomic nervous system lesions, but caused an excessive response in those subjects with a peripheral nervous system defect. This is in keeping with Cannon's law that a denervated organ is hypersensitive to its neurotransmitter.

Bickelmann, Lippschutz and Brunjes[4] experiments have led them to conclude that orthostatic hypotension is due to a hemodynamic maladjustment that is manifested in the recumbent as well as standing position. Their patients both demonstrated failure of reflex arteriolar vasoconstriction in response to tilting, and one had a very low cardiac output even when supine. The latter effect was probably due to inadequate venous return, despite the patient's position. Although autonomic nervous system dysfunction can consistently be demonstrated in this syndrome, they feel that the circulatory disturbance cannot fully be explained by it.

Other workers[32] have studied a patient with diabetic neuropathy and orthostatic hypotension by cardiac catheterization and noted that during recumbency

there was a higher central than peripheral blood pressure, unlike the normal. During tilting, the peripheral pressure exceeded the central arterial pressure, but considerably less than would be seen in a normal individual. Thus there was a defect in peripheral vascular "tone" in the lying as well as upright position. Simultaneously recorded pulmonary arterial pressure showed a slight rise during tilting, suggesting that there was no large initial fall in venous return.

The Mayo Clinic group has submitted further data which leads away from the venous pooling theory.[33] They found that five of six patients with idiopathic orthostatic hypotension had a pronounced fall of arterial pressure while they exercised in the supine position. The average drop was 50 and 32 mm. Hg, respectively, in systolic and diastolic pressure. There was a similar drop during exercise with the head of the table tilted 15 degrees below the horizontal. The authors suggest that the effect seen was the result of failure of compensatory constriction of other vascular beds, rather than failure of the cardiac output to rise.

Similar falls in blood pressure have been noted during leg exercise in the supine position, after administration of the antihypertensive adrenergic blocking agents guanethidine and bretylium tolysate.[39,40] Blair, Glover and Roddie[41] have shown that there is such compensatory vasoconstriction in resting vascular beds during exercise in normal individuals.

It was found earlier that pitressin raised the blood pressure of patients with orthostatic hypotension who were lying horizontal, but had no effect in normal individuals in this position.[34] Solomon and Kuhn[32] gave pitressin intravenously, as well as chronic sublingual DOCA, to their patients and found that it caused pressor effects and relief of the postural hypotension.

Hickler et al[35] studied a number of therapeutic measures in this condition. They found that mephentermine (15 mg. intramuscularly) produced a

TABLE II. MEDICATION FOR NEUROGENIC AND/OR HORMONAL HYPOTENSION[1]

DRUG	*INDICATIONS*	*CONTRAINDICATIONS*
Norepinephrine	Decreased vascular tone. Neurogenic and allergic shock. Acute adrenal insufficiency. Severe infections. Overdosage of depressor drugs. Paroxysmal tachycardia (if ventricular, combined with Pronestyl).	Carotid sinus syndrome. Bradycardic Adams-Stokes Syndrome.
Epinephrine	Bradycardic Adams-Stokes Syndrome.	Myocardial infarct. Cardiogenic shock. Paroxysmal tachycardia. Overdosage sympatholytic drugs.
Sympathomimetic drugs (amphetamine, paredrine and ephedrine)	Postural hypotension. Carotid sinus syndrome; bradycardic Adams-Stokes Syndrome. Recurrent vasovagal syncope	
Atropine	Carotid sinus syndrome; bradycardic Adams-Stokes Syndrome. Recurrent vasovagal syncope.	Paroxysmal tachycardia. Cardiogenic shock.
Digitalis glycosides	Auricular paroxysmal tachycardia.	Ventricular tachycardia.
Procaine amide	Ventricular tachycardia or fibrillation, (combined with norepinephrine).	A-V block (unless in congestive failure).
Adrenal corticoids	Hypoadrenocorticism Hypopituitarism "Essential" Hypotension(?) Perhaps postural hypotension (Hickler).	
Antihistaminic drugs	Allergic shock.	
Sodium chloride and glucose	Hypoadrenocorticism (with corticoid medication).	

9-alpha fluorohydrocortisone
Orthostatic hypotension

moderate rise in blood pressure in sitting and supine positions, but failed to prevent a precipitous fall on standing. There was a fair response to vasopressin tannate intramuscularly and also a hypersensitivity to intravenous levarterenol (confirming Cannon's law), but long-term therapy with these agents was generally disappointing. They then started 9-alpha-fluorohydrocortisone in a dosage of 2.0 mg/day, with gradual tapering off to 0.1 mg/day and found prompt remission of the hypotensive symptoms. There was very little change in plasma norepinephrine after such therapy and the effect is probably *not* due to alteration of the underlying disturbance in autonomic nervous system function. They feel that perhaps there was a hypervolemia secondary to mineralocorticoid therapy, or release of a vasopressor from the posterior pituitary secondary to sodium retention. Weil[36] comments that the beneficial effect was "most likely due to increases in intravascular volume which compensated for excessive loss of blood into dependent vascular beds" when the patient stood up. Schirger and his coworkers' experience with 9-alpha-fluorohydrocortisone has been somewhat promising, but they emphasize that the drug is potent and dangerous.[12]

Table II records specific therapeutic measures in hypotensive diseases.

A number of other therapeutic measures have been suggested. Thus, mechanical devices, such as a tight abdominal corset applied before rising, often help in cases in whom a weak musculature allows pooling of blood in the abdomen. Elastic stockings may also help. Avoidance of large meals and early postprandial ambulation may reduce the incidence of attacks in chronic orthostatic hypotension. Motionless standing should be avoided. Some have suggested head-up training periods in bed. High intake of sodium chloride may increase the total blood volume and extracellular fluid so that the venous return may be enhanced to prevent any tendency for reduction in cardiac output.

Surgical denervation of the carotid sinus or removal of locally irritating structures has been performed to cure the carotid sinus syndrome. Pressure on the carotid sinus or eyeballs, the Valsalva maneuver, and provoking gag reflexes are intended to forestall or to stop attacks of paroxysmal supraventricular tachycardia. The duration of vasovagal syncope is shortened by placing the patient in the head-down position.

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External Cardio-Pulmonary Resuscitation

Report on Cases at Butterworth Hospital

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THE PURPOSE of this paper is to present a review of our experience at Butterworth Hospital with the technique of external cardio-pulmonary resuscitation (hereafter referred to as ECPR) and to relate an evolution of thoughts in regard to this procedure.

In our hospital, prior to Dr. J. R. Jude's classic revelation, the new intern and resident house staff in July of 1959 and 1960 was trained on dogs in the techniques of internal cardiac massage. As is well known, this procedure was not without serious technical and physical limitations. Thus, after convincing data was advanced by the Johns Hopkins Group,[1] and others,[2] the technique of ECPR was heartily welcomed. In July of 1961 and 1962, the new house staff was trained in the procedure. However, as we learned, training is only a small part of success. Proper technical equipment with the knowledge of its correct use, medications readily available, good nursing staff cooperation, and above all, a healthy regard for the patient's age and medical status are prime requisites for a favorable outcome.

Initially, in our hospital, the procedure was done without strict adherence to uniformly rigid criteria for commencing ECPR. Our fatalities far exceeded our successes. As we achieved more experience, perfected our techniques and educated para-medical personnel in the procedure (which took approximately six months of intense effort) there was a definite improvement in results.

Comments

Certainly, a cardiac arrest is a dramatic medical emergency and it became quite obvious that in many patients, treatment has to begin before they reach the hospital. A cardiac arrest can occur anytime and anywhere from a variety of reasons including myocardial infarction, accidental electrocution, drowning, asphyxiation from carbon monoxide or plastic bags, Adam-Stokes attacks or other arrythmias and chest trauma secondary to automobile accidents. In many cases, adequate ventilation alone by mouth-to-mouth method will reverse an otherwise unhappy course of events. Therefore, we felt that it became imperative that other groups of competent medical and para-medical personnel be trained in ECPR. In some cases, mouth-to-mouth resuscitation alone was taught. At any rate, local and state dental societies, ambulance drivers, firemen, policemen and active and retired nurses were all schooled in their roles. In all cases, they wanted to help but just lacked the knowledge of what to do. In our area, we feel this education has reaped great rewards and strongly advise an active teaching program throughout the state.

In our hospital, successes were initiated by the prompt notification of the medical house staff, anesthesia department and the nursing supervisor through the page system. External cardiac massage and mouth-to-mouth resuscitation were immediately started by personnel who were first to arrive on the scene. Our method initially consists of compressing the sternum at a rate of 60 per minute and cycling respirations at a ratio of one breath to each five compressions of the chest cage. After the oxygenation has improved, we then may increase the ratio to 8:1. Currently, many believe that the respirations can be satisfactorily interposed with the sternal compressions.

While ECPR is in progress, the following equipment is rapidly assembled: a cardioscope or an EKG machine, an external defibrillator, a suction machine, a positive pressure breathing mask, air-ways, polyethelene tubing to insert into veins (Bardic Deseret Intracath) and various drugs. The following drugs, which are in emergency boxes on each floor at all times, have been found to be most useful:

1. Epinephrine, given as 5 or 10 cc. of a 1:10,000 dilution per the intracardiac route, is useful as a cardiotonic and pressor agent.

2. Sodium Bicarbonate, 50 cc. ampules (each containing 44.5 meq per liter) used to counteract the metabolic acidosis created by low flow circulation. If the arrest continues, repeated doses are necessary every five to 10 minutes.[3]

3. Calcium Chloride or Gluconate, as a 10 per cent solution of either of these, is given to increase cardiac muscle tone and contractility. It apparently has a digitalis-like effect. (Note: Sodium bicarbonate and calcium gluconate should not be drawn up in the same syringe, in order to prevent the precipitation of calcium carbonate).

4. Isuprel (Isoproteronol HCl) may also be used to stimulate the heart where there is weak cardiac action.

5. Quinidine, preferably as Quinidine Gluconate, and Pronestyl (Procaine Amide) are given to depress an irritable myocardium. With these drugs ventricular tachycardia may convert to a sinus rhythm or they may aid electrical defibrillation of the heart.

6. Levophed (Levarterenol) or Aramine (Metarminol) should be given to enhance a low cardiac output and to maintain adequate blood pressure.

Some factors, when overlooked, have been associated with unexpected failures and these should be considered. Certainly the need for an accurate diagnosis and prompt beginning of resuscitation activities, initially ventilation, are obvious. If a delay greater than four to six minutes occurs and the pupils remain widely dilated, resuscitation attempts should be discontinued. Proper placement of the hands, while compressing the sternum, is of extreme importance and will prevent the serious complications of ECRP that have been well documented.[4] Emesis should be immediately cleared from the airway and gastric dilatation should be relieved by levine intubation. This procedure further allows for adequate respiratory exchange and will often prevent a vaso-vagal reflex which in itself may result in a cardiac arrest.[5]

Another point that deserves mention concerns the handling of a chest that has a marked increase in anterior-posterior diameter, possibly secondary to chronic pulmonary emphysema. In one such case, we felt that perfusion was inadequate despite good sternal compression. Open thorocotomy in this instance may still have been the treatment of choice.

In the event of neurological sequelae after successful cardiopulmonary resuscitation it is known that hypothermia (30-32°C) may be helpful. (Below 30°C one does risk fibrillation again). Hypertonic urea (Urovert) and alkalosis induced by hyperventilation have been suggested as methods of reducing cerebral edema.[6]

While resuscitation procedures are in progress, it is best to clear the room of personnel who serve no useful purpose. Also, it is very important that the air in this tension-filled room should not be stiffled by doubts or skepticism regarding the efficacy of the procedure. Frankly speaking, this attitude dulls the initiative and zeal of all operators.

We have had eight people discharged from Butterworth Hospital in the past year, who were successfully resuscitated during their hospital stay. Uniformly, we found that those patients who have had an arrest secondary to myocardial infarction do not do as well as those having an arrest secondary to other causes.[3] Four out of the eight patients have had arrests secondary to myocardial infarction. At the time of the preparation of this paper, only one remains alive. Follow-up of these patients reveals that each has had another myocardial infarction. Many of our cardiac patients, in the hospital, were initially successfully resuscitated only to have a recurrence of their arrest prior to discharge which resulted in immediate death.

Case Reports

Case 1.—A 58-year-old housewife from Grand Rapids, Michigan, was admitted to Butterworth Hospital on July 1, 1962, because of the recent onset of atrial fibrillation. A conversion attempt with quinidine was begun. On July 5, 1962, while on high doses of quinidine, the patient had a cardiac arrest attributed to quindine intoxication. The latter was confirmed by electrocardiography. She was successfully resuscitated at the bedside with just ECPR and without electric counter shock.[7] The patient improved and was discharged without renal, cardiac or neurological sequelae.

Case 2.—A 64-year-old married white man from Belding, Michigan, was admitted to Butterworth Hospital on July 11, 1962, for a bronchography and for further evaluation of bronchial asthma. At the time of the bronchogram, he had a cardiac arrest and was successfully resuscitated with ECPR. No defibrillation was required.[7] Post-resuscitation, the patient continued to be hypotensive and his blood pressure was maintained with intravenous metarminol (Aramine). Oliguria ensued, but was successfully reversed with intravenous Mannitol.[8] Initially, the patient had some mental confusion, but all neurological, renal and cardiac sequelae reversed themselves, and on July 27, the patient was discharged in good health.

Case 3.—A 54-year-old married white man was initially seen in emergency room on February 25, 1961. Earlier in the day, he had called his local medical physician complaining of chest pain and was advised to go to the emergency room. On arrival, he collapsed and ECPR was started. EKG revealed ventricular fibrillation which was suc-

cessfully converted to normal sinus rhythm after a second electric counter shock given after intercardiac epinephrine. Following this, he recovered well from his acute anterior myocardial infarction and was discharged May 18, 1961, in good health. Follow-up confirms the continuation of his good health.

Case 4.—A nine-month-old physician's son, from Grand Rapids, Michigan, was admitted to Butterworth Hospital on January 31, 1961, with a diagnosis of bronchiolitis. The hospital course initially was one of gradual improvement and then a severe relapse followed accompanied by dyspnea and cyanosis. The patient was digitalized on February 14, 1961, and a tracheostomy was done. On February 20, 1961, he suddenly had a tonic convulsive episode with cardio-respiratory failure. He was immediately treated with ECRP and responded well. He gradually improved on an antibiotic and steroid program and was discharged on March 17, 1961, in good health. On our last follow-up (August 15, 1962) this child was well.

Case 5.—A 67-year-old divorced white man from Grand Rapids, Michigan, was admitted to Butterworth Hospital on April 4, 1962, with a history of hypertension, mild congestive heart failure and a rapid atrial fibrillation. The rate was controlled with digitalis Quinidine was started to attempt conversion to a normal sinus rhythm. On April 10, 1962, at 1:20 p.m., the patient became disoriented, cyanotic and convulsed. Shortly thereafter, he had a cardio-respiratory failure. ECRP was started. An electrocardiogram revealed ventricular fibrillation and he was immediately defibrillated. Over the course of the next 12 hours, this patient was monitored by a cardioscope and when he would begin his ventricular fibrillation, he was defibrillated with electric counter shock for a total of 172 times, with immediate conversion to normal sinus rhythm on each occasion.

Interestingly enough, this patient's neurological status was excellent and he would comment periodically that the electric counter shock could be felt and hurt his chest. Despite these efforts and medications which included Isuprel (Isoproteronol), Steroids, Molar sodium R Lactate, Sodium Bicarbonate and Aramine (Metarminol), this patient finally died at 1:00 a.m. on April 11, 1962. For the last 22 minutes of life, the patient had a normal sinus rhythm and appeared to have no obvious neurological deficit. He was, however, hypotensive and convulsed terminally. Autopsy revealed marked cardiomegaly and a recent myocardial infarction.

Summary

Death from sudden cardiac arrest from a wide variety of causes can be successfully reversed and life reinstituted with the technique of ECPR. Education of medical and para-medical personnel in techniques and use of equipment and medication is of prime and major importance. In some cases, as seen above, the procedures including defibrillation, have to be continued for long periods of time, in fact, as long as the patient's neurological status is adequate. Initial failures will be supplanted by successes after physicians familiarize themselves with this resuscitation technique. Here, patience is truly a virtue.

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SODIUM AND POTASSIUM ABNORMALITIES IN HYPERTENSION

(Continued from Page 1360)

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Why and How to Treat the Patient With Hypertension

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ESSENTIAL hypertension may be defined as an elevation in blood pressure due specifically to an increase in peripheral resistance, resulting from arteriolar constriction. The cause of the increase in peripheral resistance is not known, but the sympathetic nervous system and sodium metabolism are intimately involved in perpetuating the hypertensive state. It appears that when the blood pressure is elevated to a marked degree and for an adequate period of time, this in itself leads to perpetuation of the syndrome with resulting vascular damage throughout the body. The vascular deterioration leads to a series of symptoms particularly related to the vascular beds of the brain. the heart, and the kidneys. The prognosis of hypertensive patients is inversely related to the severity of the vascular deterioration that occurs when the blood pressure is elevated.



Fig. 1. (*A*) Eye ground changes in patient with malignant hypertension, showing retinal hemorrhage and papilledema. (*B*) Following therapy, the hemorrhages have resolved and the papilledema has disappeared.

Why Treat the Patient with Hypertension?

The economic importance of hypertensive vascular disease cannot be overemphasized, since more than 90 per cent of all cardiovascular deaths are caused by either arteriosclerosis or hypertension. The disease, therefore, deserves both medical and economic consideration. The importance of therapy is emphasized by Beem,[1] who has reported that in patients with malignant hypertension treated medically the survival rate is 50 per cent as compared to only 6 per cent in untreated patients. Also, in patients with non-malignant hypertension, control of the blood pressure arrests the vascular deterioration and improves the prognosis to

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a significant degree when the degenerative process is not too far advanced prior to therapy.[2]

One vascular bed that serves as an index of the vascular degenerative changes is the retina of the eye.

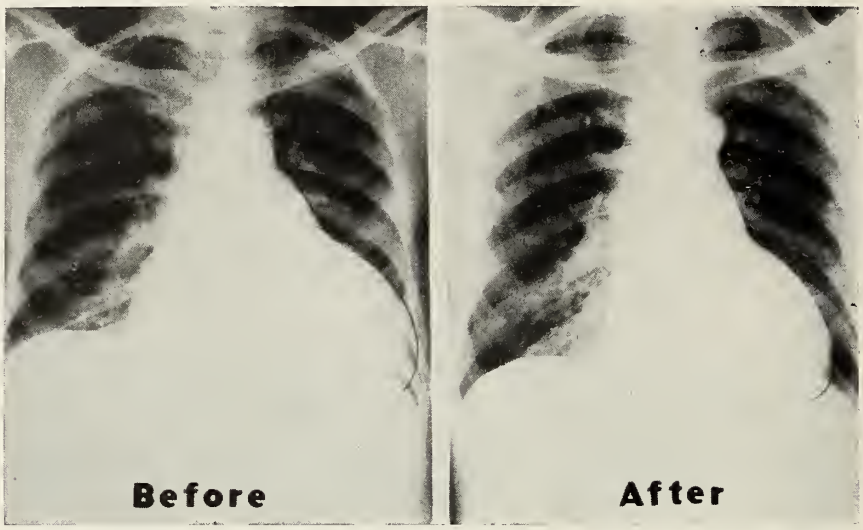


Fig 2. Effect of antihypertensive therapy on heart size before and after treatment.

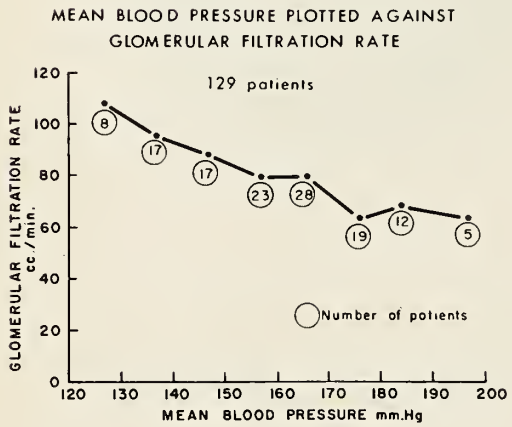


Fig. 3. Effect of arterial hypertension on glomerular filtration rate. There is an inverse relationship indicating that the higher the arterial blood pressure the greater is the renal damage as reflected in the reduction in glomerular filtration rate.

Hemorrhages along the small arteries in the retina and blurring of the disc margin due to edema of the nerve head indicate the most severe type of hypertension, frequently referred to as malignant hypertension (Fig. 1*A*). When not too far advanced, these changes are reversible (Fig. 1*B*).[3]

The heart also becomes involved early in the vascular degenerative process. Increased work load on the heart leads to heart failure. Figure 2 (*before*) is a radiograph of an enlarged heart resulting from blood pressure elevation. This patient developed signs and symptoms of heart failure due to inability to compensate for the increased work load. After six months of therapy, as indicated in the radiograph of the heart on the right (*after*), the heart size was decreased (Fig. 2). This response was a direct result of blood pressure reduction.

The kidney, too, exhibits functional impairment as a direct result of the hypertensive process. The functional capacity of the kidney, as well as the degree of vascular damage that has resulted from hypertensive vascular disease, can be estimated by determining glomerular filtration rate (inulin clearance technique) or renal blood flow.[4,5] The normal glomerular filtration rate is 100 cc/minute or more. In Figure 3, glomerular filtration rate is plotted against mean blood pressure in an unselected group of 129 patients with hypertension who came to the clinic for treatment.[6] Glomerular filtration rate is plotted on the upright, mean blood pressure on the horizontal. The diagram shows that there is a progressive reduction in glomerular filtration rate as the mean blood pressure is elevated. In other words, the higher the mean blood pressure, the lower the glomerular filtration rate, indicating that the higher the arterial blood pressure, the greater the renal damage.

In Figures 4 and 5, there is a comparison of the renal functional status during the follow-up period as compared with the control period in untreated and

treated patients. Glomerular filtration rate was determined by the inulin clearance technique, and renal plasma (blood) flow by para-aminohippurate clearance. In the treated patients there was no change in renal function before and following treatment, although the mean blood pressure was reduced from an average of 173 mm Hg to an average of 120 mm Hg ($p < 0.001$) during the follow-up period. Of the 31 treated patients, the diastolic blood pressure during therapy was less than 100 mm Hg in 15, between 100 and 120 mm Hg in 14, and between 121 and 130 mm Hg in

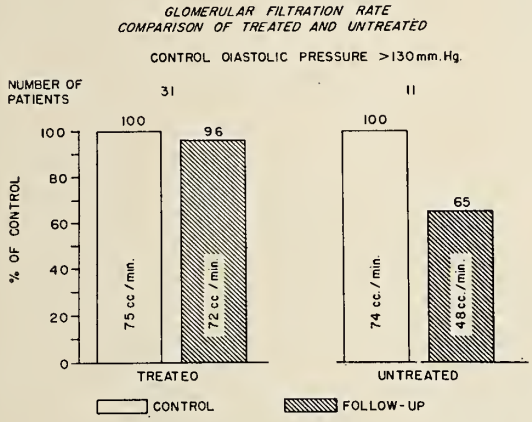


Fig. 4. Comparison of average control and follow-up of glomerular filtration rates in treated and untreated patients with hypertension.

two patients. There were no patients in whom the diastolic blood pressure was more than 130 mm Hg during therapy. Treated patients showed a significant improvement in electrocardiographic changes and a decrease in size of the heart by x-ray.

The untreated patients in this group showed a marked reduction in function during the follow-up period. The glomerular filtration rate and renal blood flow in these patients were 74 cc/minute and 648 cc/minute, respectively, compared with 48 cc/minute ($p < 0.01$) and 395 cc/minute ($p < 0.01$) for these functions at the time of the follow-up observations. In addition, there was a slight rise in the mean blood pressure from 183 mm Hg to 192 mm Hg.

In Table I are recorded observations made on a group of 116 patients with hypertension of all grades of severity, using the initial glomerular filtration rate as an index of the severity of the vascular damage throughout the body at the time of the study. These patients were followed clinically for three years and have been divided into five groups, according to initial glomerular filtration rate. Each of these groups is divided into treated and untreated patients and the number and per cent mortality calculated for both treated and untreated patients. The results show that the mortality increases and the prognosis becomes

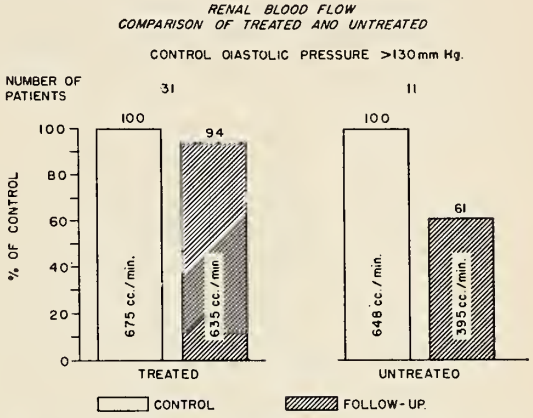


Fig. 5. Comparison of average control and follow-up renal blood flows in treated and untreated patients with hypertension.

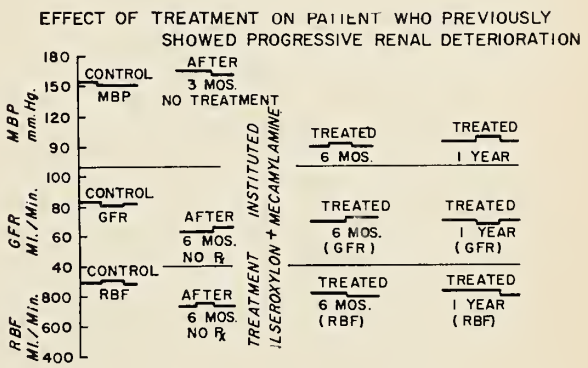


Fig. 6. Patient who was studied for six months without therapy. Renal vascular deterioration is evident. When antihypertensive therapy was started, the deteriorating process was arrested but function did not return to normal.

worse as the glomerular filtration rate decreases, i.e., the greater the renal damage, the poorer the prognosis. This is true in both treated and untreated patients. However, untreated patients show a much higher mortality than treated patients in each group. The mortality in untreated patients with a glomerular filtration rate below 60 cc/minute was 100 per cent as compared to a mortality of less than 40 per cent in treated patients. Over-all, the mortality for treated patients in this study was 18 per cent as compared to 60 per cent in untreated patients.

In summary, the above results clearly demonstrate the value of effective treatment of hypertension in

arresting the vascular deterioration associated with this disease. Renal hemodynamic studies in patients with severe hypertension, as judged by the control diastolic blood pressure elevation, show a decline in glomerular filtration rate and renal blood flow when not treated. This is seen most dramatically in patients with malignant hypertension, but the same deterioration occurs in patients with non-malignant hypertension and without papilledema (Fig. 7). In contrast, the treated patients who had a satisfactory decrease in blood pressure showed no over-all deterioration in renal function status (Fig. 8), although several individual patients did show progressive damage. The effect of treatment was only to arrest the vascular deterioration, as observed in those patients who were treated. Similar observations have been made by Perry and Schroeder.[7]

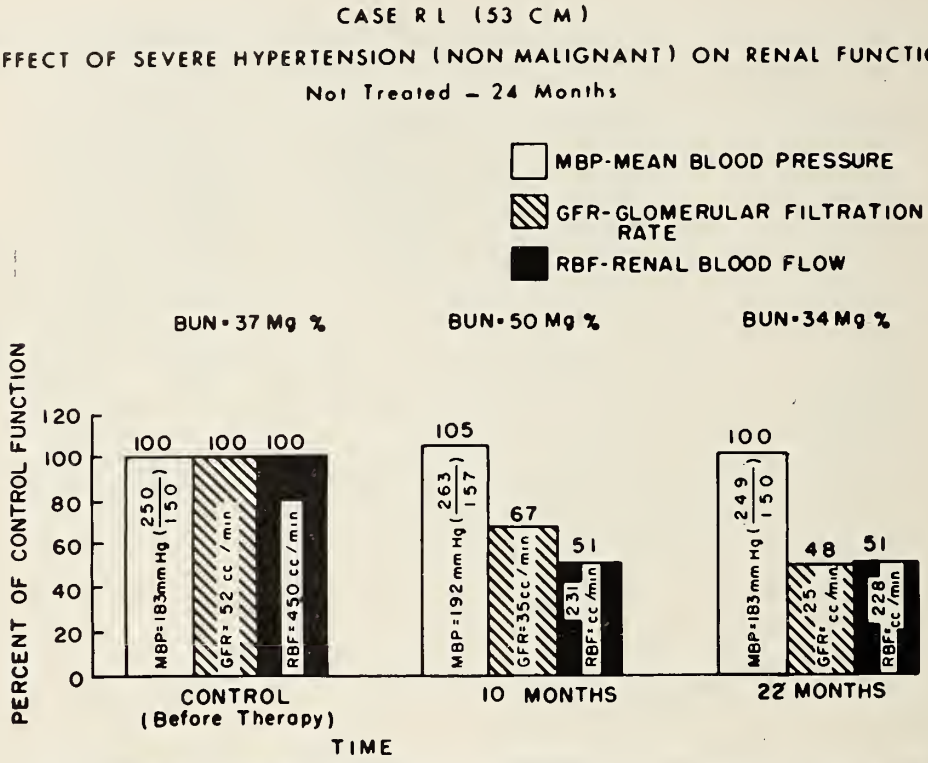


Fig. 7. Effect of uncontrolled hypertension (non-malignant) on renal function. Over a period of 22 months, there was a progressive reduction in glomerular filtration rate and renal blood flow.

TABLE I. PROGNOSIS OF HYPERTENSIVE PATIENTS BASED ON GLOMERULAR FILTRATION RATE

Glomerular Filtration Rate (cc/min.)	Number of Patients		Mortality			
			Treated		Untreated	
	Treated	Untreated	Number	Per Cent	Number	Per Cent
>100	19	14	2	10	5	36
80-99	15	9	2	13	3	33
60-79	16	12	3	19	6	50
40-59	5	10	1	20	10	100
<40	7	9	3	43	9	100
Total	62	54	11	18	33	61

Approach to Therapy

During the past decade a succession of potent antihypertensive compounds have become available for clinical use; and at present there are few hypertensive patients whose blood pressure cannot be successfully reduced to normotensive levels. The current spectrum of available hypotensive agents and their pharmacodynamic sites of action are depicted in Figure 9.

Pharmacodynamics of Natriuretic (Diuretic) Drugs

Thiazide Derivatives.—Chlorothiazide, the first member of the benzothiadiazine family to become available for clinical use, demonstrated significant antihypertensive properties. Subsequently a variety of newer analogues were introduced, and these thiazide derivatives demonstrated comparable antihypertensive effectiveness when equivalent (natriuretic and diuretic) dosages were used. Chlorothiazide* (Diuril) should be given in a dose of 500 mg. twice a day; hydrochlorothiazide (Hydrodiuril, Esidrix), in a dose of 50 mg. twice a day. After one month the dose of both drugs can usually be reduced to half without losing the antihypertensive effect.

The antihypertensive mechanism of the thiazide derivatives is as yet undetermined. Initially it was believed that their hypotensive effect was related to a reduction in plasma volume and a consequent decrease in the cardiac output.[8] Although these latter pharmacodynamic changes do occur after acute administration, there is a subsequent reaccumulation of plasma volume and restoration of cardiac output following the chronic administration of these drugs.[9] Therefore, the original postulate appears to be an unlikely explanation. The antihypertensive effect of these compounds is more likely related to the electrolyte changes which are induced at the local arteriolar level, although the latter mechanism remains unproven.

Maximum effectiveness is achieved when these compounds are used continuously rather than intermittently. In fact, the blood pressure will often return to pretreatment levels if these drugs are discontinued for a three-day period. Sodium restriction should be practiced but should not be too rigid; specifically, a daily salt intake of three to four grams is recommended. It has also been our experience that prophylactic electrolyte supplements (including potassium) are rarely required if the dosages described above are not exceeded.

The incidence of side effects and untoward reactions encountered with the various thiazide derivatives has been low. Nausea, weakness and fatigue (unrelated to hypotension or electrolyte imbalance) may occur, but it is rarely necessary to discontinue treatment because of these effects. Similarly, skin rashes (maculopapular, petechial, or purpuric) have been encountered in a small percentage of patients, but therapy can usually be continued unless thrombocytopenia is present. Elevation of blood urea nitrogen in patients with renal failure has been noted, and the drug should be administered with great caution in patients with poor renal function. Elevation of uric acid may also occur; "gouty attacks" may necessitate discontinuation of thiazide therapy.

*Numerous other thiazide derivatives can be given in equivalent doses with equal effectiveness.

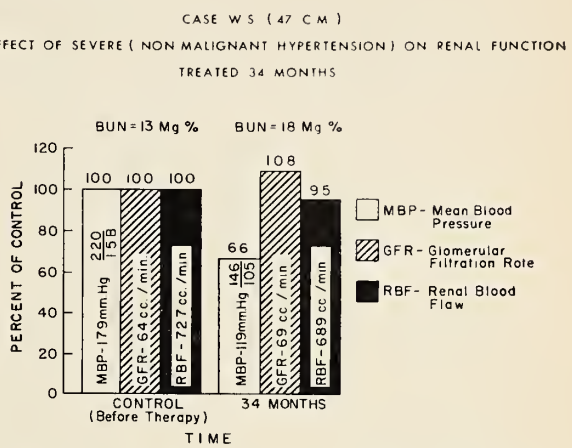


Fig. 8. Response of patient with hypertension which was treated. In contrast to the patient in Figure 7, glomerular filtration and renal blood flow did not decrease any farther after therapy was instituted, indicating that renal vascular deterioration was arrested.

Pharmacodynamics of Drugs Which Depress the Sympathetic Nervous System and Are Useful in the Treatment of Hypertension

Rauwolfia.—A large variety of rauwolfia compounds are currently available, including the single pure alkaloids of rauwolfia serpentina (reserpine, rescinnamine and deserpidine) and various preparations containing multiple active alkaloids (alseroxylon and whole root). Although there is statistically little difference in the antihypertensive response obtained with these various derivatives, the incidence of associated side effects appears to be significantly less with the alseroxylon fraction (Rauwiloid) and the whole root (Raudixin) than with the other preparations.[10]

The rauwolfia alkaloids have both central and peripheral mechanisms of action.[11] The earlier investigations indicated that these agents release serotonin from binding sites within the brain, and more recently it has been determined that rauwolfia also liberates catecholamines from the central hypothalamic centers. In addition, it has been found that rauwolfia blocks the synthesis of catecholamines peripherally at the postganglionic sympathetic nerve fibers. The latter effect depletes the sympathetic fibers of their catecholamine stores and thereby decreases the peripheral response to various pressor stimuli. These findings provide a better insight into the basic pharmacodyna-

mic mechanisms of action of this important group of antihypertensive agents.

The rauwolfia compounds possess multiple therapeutic advantages: (1) blood pressure is reduced both in the supine and in the upright position; (2) the mild sedative action of these drugs tends to lessen the frequent additional hypertensive response to emotional stimulation; (3) they potentiate the other antihypertensive agents, especially the ganglion blocking compounds and hydralazine; and (4) their bradycrotic effect is valuable, particularly when used in combination with hydralazine.

When rauwolfia is administered orally a minimum period of two to three weeks is required before maximum therapeutic effectiveness is achieved. It is therefore recommended that an initial loading dose of 8 mg. of alseroxylon (Rauwiloid) or 200 mg. whole root (Raudixin) or 0.5 mg. reserpine (Serpasil) be given during the first two weeks of therapy. Thereafter, the dosage should be reduced to half for maintenance therapy.

A variety of side effects may occur with the rauwolfia compounds. These include nasal stuffiness, increased hunger, dizziness, and excessive drowsiness. However, the most serious side effect encountered is an agitated mental depression, the first symptom of which is likely to be insomnia during the early morning hours. This insomnia may subsequently be followed by a sense of impending disaster and even suicidal tendencies. Progression of these depressive symptoms must be considered an absolute indication for discontinuation of the drug.

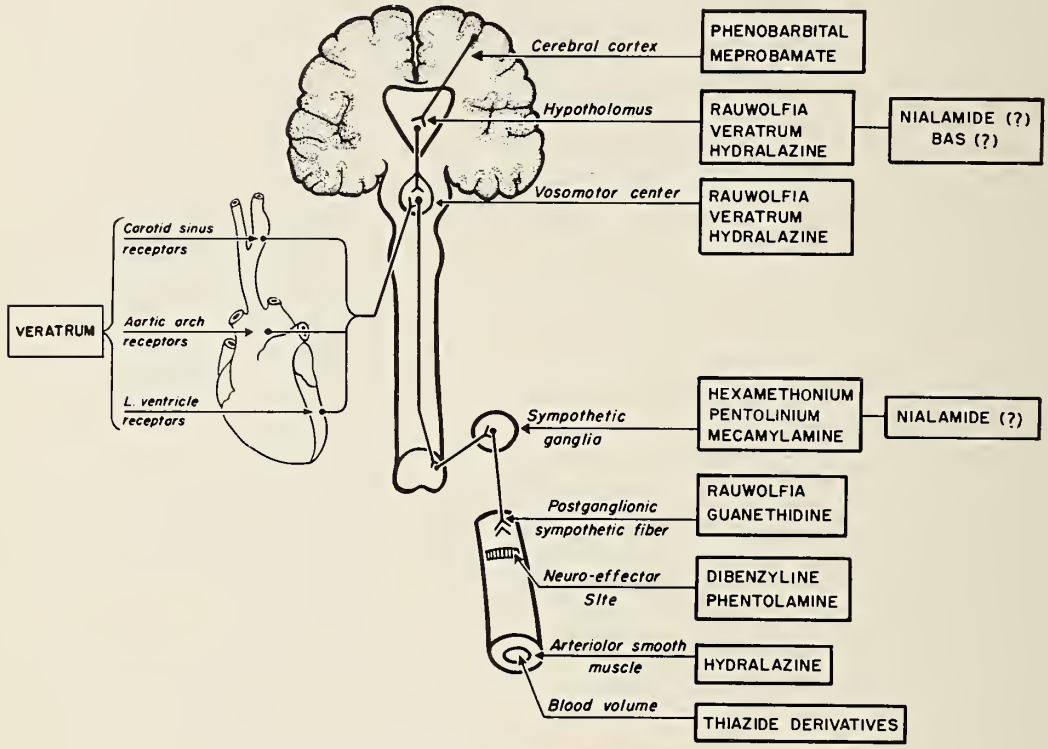


Fig. 9. Point of action of effective antihypertensive agents.

Hydralazine.—Hydralazine (Apresoline) is a rather unique peripheral vasodilator agent which produces prolonged dilatation of constricted vascular smooth muscle. In addition, hydralazine also depresses the outflow of sympathetic impulses from the hypothalamus and vasomotor center within the medulla. It is of interest that there is a maximum dose response curve beyond which further dilatation cannot be achieved even by huge doses of the drug.

The recommended initial dosage is 100 mg. daily (25 mg. after each meal and at bedtime) given in combination with rauwolfia and a thiazide diuretic. Thereafter the daily dosage may be doubled at weekly intervals until an adequate reduction of blood pressure has been accomplished or the incidence of side effects becomes prohibitive. Total dosage of hydralazine generally should not exceed 400 mg. per day since the

use of larger doses may be associated with the development of severe side effects and, particularly, a mesenchymal lupus erythematosus-like syndrome. Although uncommon, a few case reports of iatrogenic lupus have been reported in patients receiving as little as 100 mg. per day.

The major untoward effects observed with hydralazine include headache, palpitations, and increase in anginal symptoms (due to the associated cardiostimulatory effects of this compound). Patients with angina pectoris or coronary artery disease should not receive hydralazine without the concurrent use of rauwolfia and/or thiazide derivatives, since it causes a sharp increase in cardiac output, thus producing coronary insufficiency. Actual instances of myocardial infarction have been precipitated.[12]

Guanethidine.—Guanethidine is the most promising of the newer antihypertensive agents. The drug possesses a hypotensive potency similar to that of the ganglion blocking compounds, but with a rather unique mechanism of action. The latter consists of an inhibition of the peripheral release of catecholamines from the postganglionic sympathetic fiber (Fig. 9). The blood pressure reduction obtained is predominantly a postural one (Fig. 10); however, in contrast to the ganglioplegic drugs, guanethidine produces a significant hypotensive response without the associated side effects due to parasympathetic blockade. The only untoward reaction of consequence is diarrhea, which is usually mild.

The dosage of guanethidine required to obtain a significant response varies from 25 to 150 mg. per day, with an average dosage of 40 to 50 mg. daily when given concomitantly with a thiazide derivative, which further enhances its effectiveness (Fig. 10). Blood pressure reduction may not occur for 24 to 48 hours following the initiation of oral therapy, but may subsequently persist for four or more days after the drug is stopped. This new antihypertensive agent appears to hold particular promise for those patients with the more severe degrees of diastolic blood pressure elevation and is usually used in place of ganglionic blocking agents.

Ganglion Blocking Agents.—These compounds are the most potent antihypertensive drugs currently available. Their mechanism of action is due to a pharmacologic blockade of neurogenic transmission within the sympathetic ganglia. Multiple preparations are available, including pentolinium (Ansolysen), chlorisondamine (Ecolid), and mecamylamine (Inversine). The approximate equivalent dosages of these drugs are: pentolinium, 20 mg.; chlorisondamine, 12.5 mg.; and mecamylamine, 2.5 mg.

Determination of optimum drug dosage is dependent upon effective drug titration. It is extremely important to start with a small dose of ganglion blocking agent, and subsequently the dosage can be gradually increased until the standing blood pressure is reduced to the desired level. As a further guide to proper dose titration, the therapist should also question the patient concerning the occurrence and incidence of orthostatic hypotensive episodes. Thus, if the patient complains of attacks of dizziness occurring at specific times during the day, this indicates that he is obtaining an excessive hypotensive effect at that particular time and the dosage of the drug must be adjusted accordingly.

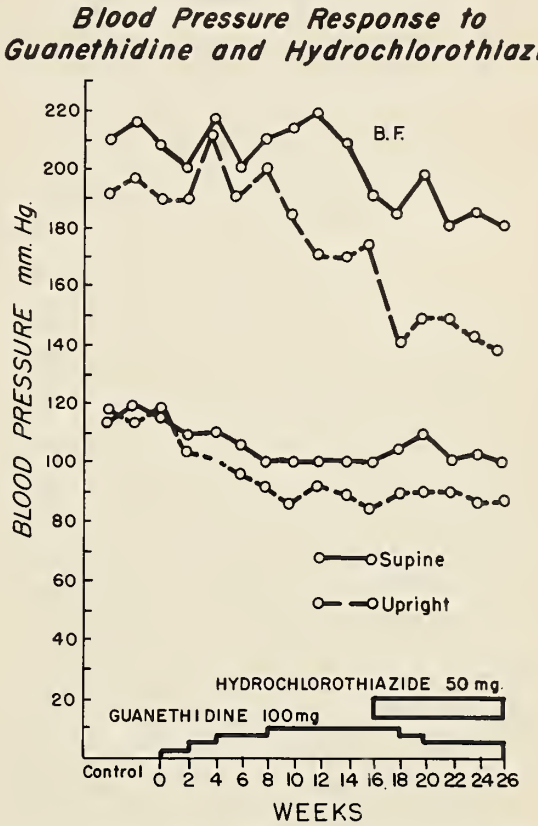


Fig. 10. Response to guanethidine with an incremented dose schedule and the enhancement of this response when the diuretic hydrochlorothiazide was added to the therapy.

Mecamylamine appears to be the ganglioplegic drug of choice, primarily because its absorption from the gastrointestinal tract is complete and therefore the daily hypotensive response is more nearly uniform than

that achieved with the other ganglion blocking compounds. Because the drug action of mecamylamine lasts for a long period of time, the larger doses must be given in the morning and at lunchtime. However, when the patient is relaxed in the evening, he does not require nearly as much. If he receives too large a dose at suppertime, he is particularly apt to experience hypotension upon arising in the morning.

Side effects encountered with these agents are due to the simultaneous inhibition of neurogenic transmission within the sympathetic and parasympathetic ganglia. These untoward effects should be anticipated and properly treated; however, they should not be feared. Constipation is the most common side effect and can usually be controlled with milk of magnesia (30 cc) or cascara sagrada (10 to 30 cc elixir), or prostigmine (15 to 30 mg before meals). Likewise, impaired visual accommodation and dry mouth usually improve with pilocarpine (5 mg. t.i.d.), and urinary retention can generally be controlled with urecholine (5 mg. t.i.d.).

The relative incidence of side effects differs among the various ganglion blocking agents. Constipation and dryness of the mouth are more frequent and of greater severity following the administration of mecamylamine. Blurring of vision and photophobia are more severe with chlorisondamine. Thus, it may be helpful to shift to a different ganglion blocking drug if a particular side effect is too severe or cannot be otherwise controlled.

Sedatives and Tranquilizers.—Every physician who has had experience with hypertensive patients is aware of the aggravating effect of emotional stress on the blood pressure level. The control of disturbing environmental influences can be helpful in the control of diastolic hypertension but is generally difficult to accomplish. The antihypertensive effect of frequent periods of rest and relaxation cannot be overestimated; and the use of sedatives and tranquilizers such as phenobarbital (30 mg. t.i.d.) and meprobamate (400 mg. t.i.d.) may be particularly helpful in this regard. However, ambulatory patients with severe hypertension obtain only a slight hypotensive response to the various sedatives and tranquilizing agents.

TABLE II. COMPREHENSIVE THERAPEUTIC REGIMEN FOR THE TREATMENT OF HYPERTENSION

Severity of Hypertension	Initial Therapy	Adjunctive Therapy When Not Adequately Responsive to Initial Therapy
Diastolic blood pressure >100 mm Hg but <120 mm Hg	Chlorothiazide*	Rauwolfia
Diastolic blood pressure >120 mm Hg but <140 mm Hg	Chlorothiazide* and Rauwolfia	Hydralazine
Diastolic blood pressure >140 mm Hg	Chlorothiazide* and Guanethidine	Hydralazine or ganglion blocking agent

*May use other thiazide derivatives with equally good results.

Over-All Therapeutic Regimen

A comprehensive therapeutic regimen for the ambulatory patient with diastolic hypertension is outlined in Table II. It is recommended that one of the thiazide derivatives be utilized as the initial therapeutic agent because of their (1) significant antihypertensive effectiveness, (2) relatively mild side effects, and (3) ability to potentiate all of the other available antihypertensive drugs. If the thiazide derivative fails to achieve the desired response, a rauwolfia compound should be added to the therapeutic regimen after one to two weeks. Thereafter, if the blood pressure remains elevated after two or more weeks of combination therapy, hydralazine should be started according to the dose schedule described above. Finally, if the hydralazine is ineffective, it should be abandoned in favor of guanethidine (Ismelin) when the hypertension is of adequate severity to warrant the use of this compound. In the treatment of severe progressive hypertension, it is recommended that guanethidine be added to the therapeutic regimen (of thiazide derivatives and rauwolfia compounds) without delay.

Some clinicians prefer to use a rauwolfia compound, rather than a thiazide derivative, as the initial antihypertensive drug.[13] The former compound is selected primarily because of its additional central sedative effect. However, it must be recognized that there is a greater incidence of side effects associated with the rauwolfia compounds than with the thiazide derivatives.

The above regimen may also be modified by the substitution of ganglion blocking agents for guanethidine when the latter drug is not adequately effective. The lesser incidence of side effects associated with guanethidine may make this compound the drug of choice in patients with severe blood pressure elevation.

The ultimate goal of the therapist is to reduce the

blood pressure to normotensive levels. However, this is not always possible, if there are prior evidences of significant vascular deterioration or renal damage. In the later instances a hypotensive response may actually result in signs and symptoms of vascular insufficiency or uremia, so that the blood urea nitrogen determination must be utilized as a therapeutic guide for blood pressure regulation. When the blood urea nitrogen is normal, the blood pressure can generally be reduced to normotensive levels immediately without untoward effect. However, in the patient with depressed renal function due to advanced kidney damage, the renal vessels do not dilate adequately when the blood pressure is reduced too rapidly or too excessively and the existing renal failure may be aggravated. Therefore the blood pressure should not be immediately reduced to normotensive levels in the patient with a blood urea nitrogen elevation.

If the blood urea nitrogen is 30 to 60 mg. per cent, the standing blood pressure can usually be safely reduced to about 170 mm Hg systolic and 110 mm Hg diastolic. When the blood urea nitrogen is 60 to 100 mg. per cent, the blood pressure should not be reduced much below 190/120 mm Hg initially. Subsequently, after a month or more of blood pressure reduction, an additional lowering can sometimes be accomplished without further renal functional impairment. However, in those patients in whom the pretreatment blood urea nitrogen is greater than 100 mg. per cent, blood pressure reduction can generally not be safely accomplished.

Summary

The management of the patient with hypertension has been described. Emphasis has been placed on the rationale of antihypertensive therapy, and the clinical use of drugs which lower the blood pressure has been described.

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CONGENITAL HEART DEFECTS

(Continued from Page 1345)

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An Evaluation of Anisindione, A New And Useful Oral Anticoagulant

Preliminary Report

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ANISINDIONE, 2-p-anisylindanedione-1, 3 is a short-acting oral anticoagulant. It is the third indanedione derivative to become commercially available, having been preceded by phenindione, a short-acting agent with similar characteristics, and by diphenadione, a long-acting preparation.

Preliminary studies in healthy male volunteers revealed that single doses of 150 to 350 mg. of anisindione would prolong the Quick one-stage test maximally 20 to 30 hours after administration. Prothrombin assays by the two stage technique and Factor VII assays both showed decreased activity indicating that decreases in both prothrombin and Factor VII were responsible for the abnormality in the one-stage test. Factor V assays, fibrinogen determinations and clotting time measurements were not affected by anisindione.

Anisindione was used as the principal anticoagulant for the inpatient therapy of 169 patients with or predisposed to intravascular thrombosis (Table I). Heparin was often employed in addition to anisindione during the initial stages of therapy. There were a total of 193 courses of treatment varying from three to 51 days in length with a total of 2757 treatment days. The average treatment period was 14 days.

In 81 of the treatment periods, the goal of therapy was depression of the plasma "prothrombin activity" to between 10 and 30 per cent as measured by the Quick one-stage test and maintenance of this level of "prothrombin activity" until treatment was discontinued. Most of the information presented here was obtained from this group in order that the data be comparable with that reported from our other clinical trials of oral anticoagulants. An additional 112 periods of therapy were conducted with the 30 to 50 per cent "prothrombin activity" range as the therapeutic objective. We use this range for most patients treated for cerebral vascular disease. This custom and a concurrent alternate case study comparing the effectiveness of the 10 to 29 per cent range with that of the 30 to 50 per cent range account for the majority of individuals being in the latter treatment group.



Author

PARK W. WILLIS, III, M.D.

TABLE I. INDICATIONS FOR ANTICOAGULANT THERAPY

Deep venous thrombosis (without evident pulmonary embolism)	82
Pulmonary embolism (with or without deep venous thrombosis)	26
Myocardial infarction or impending infarction	24
Prophylactic	20
Congestive heart failure	18
Cerebral vascular thrombosis, embolism or insufficiency	18
Other arterial thrombosis or embolism	4
Frostbite	1
Total courses of therapy	193

The results obtained with anisindione are listed in Table II along with similar data from trials of other anticoagulants. The average initial doses of anisindione, given at 12-hour intervals, were just over 200, 100 and 50 mg. The average total induction dose to depress "prothrombin activity" to less than 30 per cent was 369 mg. This level was reached, on the average, in one and one-half days. To maintain "prothrombin activity" values under 30 per cent an average daily dose of 79 mg. was needed. Individual daily maintenance dose requirements ranged from 18 to 157 mg.

Ninety per cent of the courses of therapy aimed at maintenance of "prothrombin activity" at 10 to 30 per cent were associated with at least one daily value above 30 per cent at some time after the initial value in the therapeutic range was obtained. About one-third of the time during maintenance therapy values

From the Department of Internal Medicine of the University of Michigan Medical School. This study was supported by grants from the Michigan Heart Association, the Rackham School of Graduate Studies and the Schering Corporation. Supplies of anisindione (Miradon) were provided by the Schering Corporation.

TABLE II. COMPARISON OF RESULTS OBTAINED WITH DIFFERENT ANTICOAGULANTS

	Anisindione (Miradon)	Acenocoumarin (Sintrom)	Diphenadione (Dipaxin)	Phenindione	Bishydroxy-coumarin (Dicumarol)	Ethyl Bis-coumacetate (Tromexan)
Patients treated (Baseline "prothrombin activity" 80-100%)	92	52	64	133	122	50
Mean induction dose						
To less than 30% "prothrombin activity"	369 mg.	58 mg.	63 mg.	685 mg.	646 mg.	3120 mg.
To less than 50% "prothrombin activity"	306	—	—	—	—	—
Maintenance dose						
For 10-30% "prothrombin activity" range	79 mg.	11 mg.	—	—	—	—
For 30-50% "prothrombin activity" range	65 mg.	—	—	—	—	—
Therapeutic effect (10-30% range) achieved						
Within 24 hours	21%	2%	5%	18%	14%	12%
Within 48 hours	89%	60%	67%	95%	55%	82%
Average (days)	1.5	2.3	2.3	1.3	2.3	2.1
Average days to recover (to 40% or above)	1.2	1.5	4.1	1.5	5.0	2.5
Escape						
Maintenance therapy periods associated with one or more "prothrombin activity" values over 30%	90%	81%	38%	17%	37%	90%
Proportion of total maintenance therapy days associated with "prothrombin activity" values over 30%	33%	27%	—	—	—	—
Excessive effect						
Therapy periods associated with one or more "prothrombin activity" values under 10%	6%	27%	10%	10%	15%	20%
Proportion of total maintenance therapy days associated with "prothrombin activity" values under 10%	1%	3%	—	—	—	—
Incidence of bleeding						
Total	9%	17%	11%	6.5%	11%	9%
Major	1%	0	—	—	—	—
Minor	8%	17%	—	—	—	—
Total patients treated	169	70	104	200	303	100

over 30 per cent were obtained. This seemingly poor control of "prothrombin activity" is almost certainly a reflection of unfamiliarity with this drug by the physicians regulating therapy rather than of any undesirable pharmacologic properties of the drug itself. Just how common or unusual control of this degree may be is hard to determine from most published accounts of the use of oral anticoagulants. That it is not too unusual is suggested by some published reports of others and by our earlier experiences, specifically that with acenocoumarin when 27 per cent of the maintenance period determinations were noted to be over 30 per cent.

An excessive effect was noted in 6 per cent of the treatment periods but was present for only 1 per cent of the time during maintenance therapy. At the end of therapy "prothrombin activity" returned from levels in the 10 to 30 per cent range to values over 40 per cent in an average of 1.2 days (range—12 to 96 hours). As with other oral anticoagulants, a prompt response of depressed "prothrombin activity" levels to intravenous or oral vitamin K_1 was noted.

There were two instances of bleeding of major degree (hematemesis and melena which occurred at "prothrombin activity" levels of 34 and 18 per cent, respectively) and 15 of minor degree (usually epistaxis or rectal bleeding which occurred at levels of 18 to 50 per cent). Bleeding occurred at one time or another during 9 per cent of the courses of therapy. There were no deaths caused by or evidently related to a hemorrhagic complication of therapy.

Except for one patient who developed a maculopapular skin rash, no side effects or clinical evidence of toxicity was noted. Chromaturia, much less marked than with phenindione, was noted occasionally.

It is evident that anisindione is another effective and quite satisfactory short-acting oral anticoagulant. It resembles phenindione quite closely in many respects but has not as yet been associated with any of the severe toxic effects noted rarely with phenindione. Anisindione is a worthwhile addition to the list of available oral anticoagulants and is deserving of wider clinical use.

Summary

1. Anisindione, a short acting oral anticoagulant, was administered to 169 patients, 92 of whom had normal baseline prothrombin activity levels.

2. Analysis of this experience reveals a close similarity between the characteristics of this agent and those of phenindione.

3. Anisindione is an effective drug for producing "hypoprothrombinemia." Its action is reasonably easy to control and the drug appears free of significant toxic effects.

4. Wider use of this satisfactory oral anticoagulant is fully warranted since it provides minor but definite advantages over older agents.

Myocardial Infarction in an Industrial City

A Continued Study

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ALL ADMISSIONS to Hurley Hospital for the years 1955, 1956 and 1957 with the proven diagnosis of myocardial infarction were reviewed. Various factors such as age, sex, race and associated diseases were all taken into account and the statistics calculated to determine the influence of each of these factors on the incidence and immediate prognosis of acute myocardial infarction.

A total of 426 cases were compiled and studied. All patients with questionable electrocardiograms and those who expired before an electrocardiogram could be obtained were not included in this study unless, in the absence of an electrocardiogram, the diagnosis was confirmed at autopsy.

In 1954, the initial report of a continued study was made on myocardial infarctions in an industrial city. At that time, all hospitals in the city of Flint, Michigan, participated in the study and in the initial report 254 cases of myocardial infarction were included. However, due to factors beyond control, it has been necessary to confine the continuing report of this study to Hurley Hospital, which is the city hospital with 709 beds.

The reason for a continuation of this study on myocardial infarctions is to maintain a continued evaluation of changing therapeutic procedures in the treatment of myocardial infarction, which might influence the morbidity and mortality of the disease. The need for such a continued study is especially true at Hurley Hospital, which is an open-staff hospital in which each physician enjoys the rights to practice in his own desired way. Hence, it is difficult to standardize procedures rapidly, and time is of essence in the acceptance of these newer therapeutic measures.

Therefore, in the light of this prevalence of myocardial infarctions in our community, and the rapid advances in therapy for this disease, it becomes necessary to continually evaluate our results in order to be certain that our educational program is keeping our attending physicians abreast of these advances in medical science. This continued report, which shows a reduction in mortality and morbidity as compared to the initial report in 1954, demonstrates that such methods have met with some success.

Race

Of 426 patients with proven myocardial infarctions 23 (5.4 per cent) of these were Negroes, which is a significant increase over the value of 1.4 per cent found in the same hospital for the year 1954.[14] This difference may be accounted for by the fact that this study is concerned with Hurley Hospital alone, which handles most of the Negro admissions in the City of Flint, whereas the initial report in 1954 covered all three hospitals in the City of Flint. The percentage of Negro admissions over the three years included in this study was approximately 33 per cent of the total number of admissions. The low incidence of myocardial infarction among Negroes shown in this study is supported by other authors.[2,17]

Sex

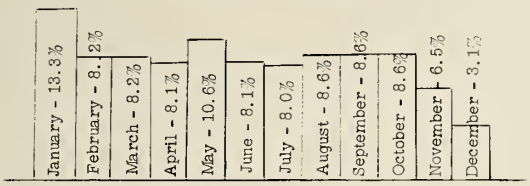
Out of 426 patients, 403 were of the caucasian race and in this group the ratio of males to females was 2.8:1. This ratio varies with different authors in different areas. The incidence obtained in this study is supported by similar studies carried out by Leon V. McVray and Philip G. Keil in Alabama,[2] also by Samuel Baer and William T. Heine in Philadelphia.[6] Among the colored population, the ratio of male to female patients was 3.6:1.

This difference in the incidence between male and female patients is influenced by the age group. Over the age of 50, the ratio was increased considerably both in the white and colored population (4.5 male patients to every white female patient and 7.5 colored

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male patients to every colored female patient); whereas, under the age of 50 there was no difference in the incidence of male to female patients affected among the Negro patients, and in the same age group 2.5 white male patients had myocardial infarctions to every white female patient.

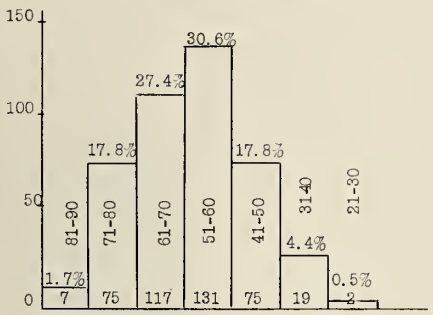
Seasonal Incidence



Winter	28.1%
Spring	27.1%
Summer	24.9%
Fall	19.9%

The highest incidence of myocardial infarction was in January with a total of 54 (13.3 per cent); the lowest was in December with a 3.1 per cent incidence. The reason for this difference is unknown. Also, seasonal variation was not significant except for the lower incidence in the fall. An earlier study at this same hospital showed peaks in June, July, November and December. Most authors report an even distribution throughout the year.

Age Distribution



The peak incidence was in the sixth decade, making up 30.6 per cent of all patients. Of all the patients 58 per cent fell in the 50 to 70 age group. Two premenopausal Negro female patients were included in this study; one 34 years of age with no associated disease and the other, 35 years of age, obese and hypertensive. Myocardial infarction among premenopausal colored women is extremely rare as reported by other authors. Three Negro male patients under the age of 50 were encountered; one of whom was 35 and had rheumatic heart disease. Among the white patients, there was a 23-year-old young man who had rheumatic heart disease and a 29-year-old man with hypertension who suffered a subendocardial infarct.

The average for white men was 52 years of age as compared with 62.3 years for white women, whereas among the colored patients, men were 55.1 and women 52.2 years of age. This is an approximate agreement with other similar reports.[5,6] Leon V. McVray and Philip G. Kiel found in their study that infarction occurred approximately 10 years earlier in the Negro woman than in the Negro man, which is the exact opposite of the ages calculated among the white population in the present study.[2]

Location of Infarction

			Deaths	
Posterior	182	38.3%	34	18.7%
Anterior	193	42.3%	33	17.6%
Anteroseptal	51	11.1%	15	29.4%

Anterior wall infarctions were found to be slightly more common than posterior wall infarctions. The same observation was made by Samuel Baer and William T. Heine, M.D., in their study of the mortality of acute myocardial infarction.[6] This is also the consensus of most authors. Anteroseptal infarcts were only one-fourth as common as anterior wall infarcts, but had a 12 per cent higher mortality rate; whereas the difference in mortality rate of anterior and posterior wall infarctions was only 1 per cent. This is in agreement with S. S. Mintz, of Chicago, who, in a recent study of myocardial infarction, observed that there was no significant difference in the mortality rate in anterior and posterior wall infarctions.[4]

Associated Diseases

Hypertension:

	Sex	Deaths	Mean
Hypertensive - 159 or 37.6%	M- 103	14 (13.6%)	17.9%
	1.9		
	F- 56	14 (25%)	

	Sex	Deaths	Mean
Normotensive - 263 or 61.7%	M- 210	41 (19.5%)	19.8%
	3.9		
	F- 53	11 (20.8%)	

Unknown - 4

Much has been written on the incidence of myocardial infarction in hypertensive patients. The incidence varies greatly with different observers. S. S. Mintz, in his series, found hypertension present in 35.9 per cent, while Francis F. Rosenbaum, of Ann

Arbor, found antecedent hypertension in 57 per cent of patients.[4,5] In this series 159 (37.6 per cent), patients had hypertension.

One hundred and three (32.9 per cent) male patients had hypertension, as compared to 51.4 per cent of female patients.[21] The mortality rate among hypertensive women was 25 per cent, almost double that among hypertensive men (13.6 per cent). This did not differ significantly with the non-hypertensive patients. The average mortality rate among hypertensive patients was 17.9 per cent and among normotensive patients was 19.8 per cent. This was also found to be true by Morton M. Halpern, et al, of Miami, Florida.[10]

Diabetes Mellitus

		Sex	Deaths	Mean
Diabetes:	42	M- 18	9 (50%)	37.7%
	9.8%	F- 24	6 (25%)	
Non-Diabetes:	384	M-297	47 (15.9%)	17.4%
	90.2%	F- 87	20 (23%)	

Forty-two (9.8 per cent) patients included in this series were diabetic, which agrees with the 10 per cent found in the same hospital in 1954.[14] Eighteen were men (43.3 per cent) and 24 women (56.7 per cent). Here, the effect of diabetes on the mortality rate was much more significant than that produced by hypertension. Fifty per cent of male diabetic patients admitted with myocardial infarction expired, as compared to 25 per cent of female diabetic patients, whereas among non-diabetic individuals the mortality rate among men was much lower (15.9 per cent). There was no significant difference in mortality rate between diabetic and non-diabetic women. The overall mortality rate among diabetic patients was 35.7 per cent, or exactly double that among non-diabetic patients (17.4 per cent).

Mortality Rate

426 patients -- 82 deaths -- 19.2% mortality rate → males - 17.7%, females - 23.4%

Mortality over sixty → males - 24.4%, females - 26.1% } 25.6% white

Mortality under sixty → males - 11.7%, females - 21.9% } 13.6%

There were 82 deaths for an overall mortality rate of 19.2 per cent. This value is less as compared to the 26 per cent mortality rate at the same hospital in 1954.[14] Sidney Schnur found that the mortality rate varied from 8 to 95 per cent when the patients were grouped as to the severity of the illness.[1,6,9] In the 80-plus critically ill age group, the mortality rate was found to be 95 per cent in his series.

More women (23.4 per cent) died of the disease than men (17.7 per cent). Determining the mortality rate of each sex over and under the age of 60 years, it is interesting to note that among the white population men over 60 years of age have a mortality rate of 24.4 per cent, as compared to 11.7 per cent under the age of 60, whereas among women the difference in these two age groups was less significant (26.1 per cent in the older group versus 21.9 per cent in the younger age group).

It was also found that among five colored women, there were no deaths. whereas among 18 Negro men, there were five deaths, an incidence of 28 per cent.

Prognosis for patients under 60 years of age is twice as good as among the older age group, comparing an overall mortality of 12.6 per cent versus 25.6 per cent in the older age group.

Anticoagulation

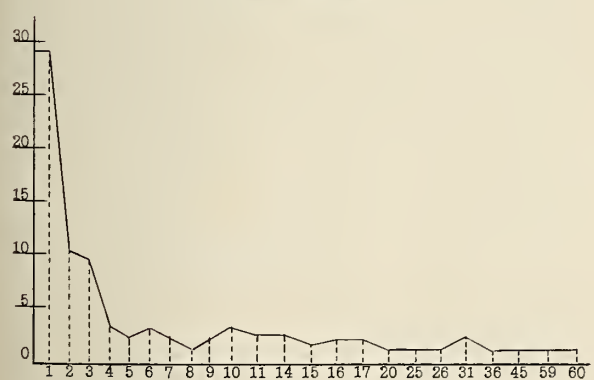
		Deaths		
Dicumerol: 302	24 hours	4	-2.3%	8.9%
	1-7 days	13	-4.3%	
	over 7 days	14	-4.6%	
No Dicumerol: 124	24 hours	25	-20.0%	20.9%
	1-7 days	16	-12.9%	
	over 7 days	10	-8.0%	
Heparin: 75	24-96 hours	3	-4.0%	
No Heparin: 308	24-96 Hours	21	-6.8%	

Anticoagulants play an important role in the treatment of myocardial infarction. The overall mortality for patients who were not anticoagulated was 20.9 per cent, whereas it was only 8.9 per cent for patients in whom dicumerol was used as part of the treatment. The greatest difference in mortality rate was between one and seven days where the mortality rate was three times higher among the non-anticoagulated patients as compared to those who were anticoagulated. Patients who expired during the first 24 hours after admission were not included in this study, since the length of time in the hospital was either too short for the patient to be started on anticoagulants or if dicumerol was started its effect on the prothrombin time by the end of 24 hours was not sufficient to be of any benefit to the patient. Similar results were obtained in a series of 160 cases by H. Grusman and R. Marcus of New

York. In their series the mortality among a control group was 35 per cent and among those treated with dicumerol was 9 per cent.[3] Somewhat similar results were observed by other authors.[8,9] Robert H. Furman Etal of Nashville in 1953 found that patients not treated with dicumerol showed a mortality rate of 32 per cent, whereas those treated showed 18 per cent mortality rate. He also noted that among the very poor risk patients there was no significant difference in the mortality rate. The same was found among good risk patients. The poor risk patients benefited most from anticoagulation with a mortality rate of 41 per cent when not treated as compared to 23 per cent when treated with dicumerol.[11] Studies performed on long-term anticoagulants showed a fourfold increase in mortality rate at the end of the first year when the patients were not anticoagulated.[13] Some authors believe that it is difficult to determine the effects of dicumerol on the mortality rate because fewer patients in the older age groups are anticoagulated and these patients frequently represent the critically ill patients with a poor prognosis, whereas the younger age group have a better prognosis because of their age and a larger number of these patients can be anticoagulated with smaller risk of complications. In this series the patients who expired and had not been anticoagulated were of an average age of 65 years, whereas those who were anticoagulated averaged 62.7 years. Thus the difference in age is not significant, and the difference in mortality rate can be accounted for by use of anticoagulants.

Also in the group of patients who received heparin, there was an increase in survival rate though not as significant as that obtained with dicumerol. Only those patients who expired between 24 and 96 hours were studied and there were three deaths among patients on heparin, an incidence of 4 per cent, whereas without heparin the mortality rate was 6.8 per cent.

Time of Death



Of all deaths, 58.5 per cent occurred during the first three days. A survey in 1954 at the same hospital revealed that 66 per cent of all deaths occurred during the first 72 hours.[14] After the third day, the mortality rate over the folowing two months averaged out to about 0.8 per cent daily.

Complications

Deaths After 24 Hours

		Number	Anticoagulants Yes	No
1.	C H F	9 (16.9%)	4	5
2.	Shock (Levophed)	6 (11.3%)	6	0
3.	Unknown	22 (41.5%)	12	10
4.	Rupture and Tamponade (11 - 5 & 7 days)	3 (5.6%)	1	2
5.	Pulmonary Infarcts (9, 16, 17, 45 days)	4 (7.6%)	1	3
6.	Arrhythmias (3, 3 - 6, 16 days) (Tachycardia Auric Fibrillation)	4 (7.6%)	3	1
7.	Pneumonia (2 days)	1 (1.9%)	1	0
8.	CVA (3, 4, 30 days)	3 (5.6%)	0	3
9.	Diabetic Acidosis (3 days)	1 (1.9%)	0	1

There were 53 deaths after the first 24 hours. The most common cause of death was congestive failure, contributing to 16.9 per cent of deaths. This value may be much higher since the cause of death in 22 patients was not accounted for. This agrees with the series reported in 1954 at the same hospital.[14] Thromboembolic phenomena accounted for 13.2 per cent of deaths. It is an interesting observation that in 85.5 per cent of these deaths the patients were not anticoagulated, whereas only 15.5 per cent had been anticoagulated. This is another point in favor of anticoagulation. This result is in agreement with that found by Harry Grusman of New York.[3,12] Rupture and tamponade accounted for three deaths (5.6 per cent). Two of these patients were anticoagulated. Arrhythmias accounted for 7.6 per cent of deaths. This is thought to be the most common cause of death by some authors.[22]

Previous Infarcts

		Deaths	
0 Infarcts	310	51 - 16.4%	
1 Infarct	104	29 - 27.8%	
2 Infarcts	10	1 - 10.0%	26.6%
3 Infarcts	2	1 - 50.0%	

Previous myocardial infarctions influence the prognosis. Morton M. Halpern et al and John W. Keyes et al in their studies, showed an increase in mortality rate in those patients who did have previous infarctions. These findings approximate those in the present series.[10,13]

A mortality rate of 16.4 per cent was found among patients who suffered their first infarct, whereas the mortality rate rose to 26.6 per cent among those who had two or more infarcts. The number of patients who suffered three previous infarcts was too small to determine their influence on the mortality rate.

Summary

A previous study reported by Hurley Hospital in 1954 on myocardial infarction prompted a follow-up study for the years 1955-56 and 1957. A total of 426 cases were reviewed and studied for these three years. Age, sex, race, associated diseases and anticoagulation were all taken into consideration and their effects on the prognosis of patients with myocardial infarction were studied. Complications, location of the infarct and history of previous infarcts were also taken into account.

Conclusions

1. A total of 426 cases of myocardial infarction were reviewed and various factors determining the incidence and prognosis of this illness were studied.

2. In this study, 5.4 per cent of the patients were Negroes and of the total number of patients admitted to Hurley Hospital from 1954 to 1957, inclusive, 33 per cent were Negroes.

3. Ratio of male to female patients was 2.8:1. This ratio is increased to 4.5:1 over the age of 50. There were 7.5 colored male patients to every female patient over the age of 50, and in the younger age group there was no difference.

4. Seasonal incidence did not show appreciable variation.

5. The peak incidence was between 50 and 70. There were two premenopausal colored female patients. There were two white male patients under the age of 30.

6. The incidence and mortality rate of anterior and posterior infarcts were almost equal. Anteroseptal infarcts had a higher mortality rate.

7. Hypertension had no effect on the mortality rate.

8. The mortality rate among diabetic patients was double that among non-diabetic.

9. The overall mortality rate was 19.2 per cent. The incidence was higher among female patients.

10. Dicumerol decreased the mortality rate by almost one-third. The greatest effect was between one and seven days.

11. Of all deaths, 58.5 per cent occurred during the first 72 hours.

12. The most common cause of death was CHF. Among the thromboembolic phenomena (seven in all), six patients were not anticoagulated.

13. There was a higher mortality rate among patients who suffered two or more previous infarcts as compared to those who were admitted with their first infarct.

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Prevention of Coronary Heart Disease

Harry Vander Kamp, M.D.
L. P. Shipp, M.D.
A. A. Humphrey, M.D.

Battle Creek, Michigan

AT PRESENT, disorders of the cardiovascular system cause more than half of the deaths that occur annually in the United States. The prevention and treatment of both rheumatic heart disease and hypertensive heart disease has shown definite improvement. Coronary heart disease, however, still accounts for 29 per cent of all deaths.[1] Many of these are sudden and unexpected. Many occur during productive years and bring serious family loss and social disorganization. The disorder is no longer considered to be a natural and recurring accompaniment of age.[2] Katz and others maintain that atherosclerosis is a reversible lesion.[3,4] There is an increasing amount of clinical evidence which indicates that genetic factors are operative in this disorder.[5,6] There is likewise an increasing amount of clinical and experimental data which indicates that a low fat diet has therapeutic value in coronary heart disease. To compensate for the low fat, there must be an increase in the amount of carbohydrates. A high carbohydrate diet favors the development of an intestinal flora which alters bacterial metabolism of sterols and bile acids. This, in turn, results in a reduced hepatic synthesis of cholesterol.[7]

The situation at this neuropsychiatric hospital gave us an unusual opportunity to evaluate the beneficial effect of a low fat diet. Our dietitians are required to be college graduates with a major in nutrition. The diet given our patients and the food available to them can be very accurately controlled. It can be administered for an indefinite period of time since many of our patients require years of hospitalization. The incidence of coronary heart disease at this hospital is higher than that in the general population since all our patients are male veterans. Post-mortem examinations are performed on about 75 per cent of these patients at the time of death. The pathological diagnoses established at post-mortem examination can thus be used as a basis for evaluation.

Doctor Shipp is Consultant in Internal Medicine, and Dr. Humphrey is Consultant in Pathology, Veterans Administration Hospital, Battle Creek.

In November, 1958, a ward of 30 patients was selected for this study. These patients were a random and representative sample of about 350 in the age group of 50 years or older. Two of these 30 patients had clinical and electrocardiographic evidence of coronary heart disease at the time the study was begun. This group of 30 patients was placed on a diet of protein 90, fat 25, and carbohydrate 380 grams. The caloric value of the fat content is thus about 10 per cent. To compensate for the abnormal composition of this diet, several of these patients received regular intramuscular injections of a preparation consisting of Testosterone Enanthate, 90 mg., and Estradiol Valerate, 4 mg. This was done for the anabolic effect. The other patients at the hospital received the regular hospital diet which has a fat content of 40 per cent. The study was continued until July, 1961, at which time we had a series of 100 consecutive autopsies. Thirteen of these were patients on the 10 per cent fat diet, and 87 represented patients in the group on the regular hospital diet of 40 per cent fat. A diagnosis of coronary heart disease was made when the pathological diagnosis listed either coronary atherosclerosis, coronary occlusion, coronary insufficiency, or myocardial infarction. Coronary heart disease was found in 34 of these 87 patients on the 40 per cent fat diet. It was found in two of the patients on the 10 per cent fat diet. One had a coronary occlusion, and the other a myocardial infarction. However, these were the two patients who had clinical and electrocardiographic evidence of coronary heart disease prior to the institution of the 10 per cent fat diet. Atherosclerotic plaques, however, were not found in any of these 13 patients on the low fat diet.

The above statistical data, based on the pathological diagnoses established at post-mortem examination, definitely indicate that a low fat diet has therapeutic value in the prevention of coronary heart disease. We wish, however, to emphasize that of the 87 patients on the 40 per cent fat diet, 53 showed no evidence of coronary heart disease, even though all but 10 were 50 years or older. These patients must have some

biological mechanism which protects them from the development of atherosclerosis. We would again affirm that atherosclerosis should be considered a biochemical lesion.[9,10] A rational postulation would be that this lesion is due to a genetically determined enzymatic defect in fat metabolism, the endothelium of the larger vessels being the target tissue. This defect, then, becomes inoperative when the fat content in the diet is reduced to 10 per cent. Clinically, we are in need of a simple laboratory test which would designate those individuals who are vulnerable to the development of atherosclerosis. The test would be somewhat analogous to the glucose tolerance test in the detection of diabetics.

Summary

A study was made of post-mortem findings of patients on a 40 per cent fat diet and a comparable group on a 10 per cent fat diet. Coronary artery disease was found in 34 of 87 patients on a 40 per cent fat diet. No atherosclerotic lesions were found in the coronary arteries in thirteen patients on the 10 per cent fat diet. It is postulated that atherosclerosis represents a genetically determined enzymatic defect in fat metabolism. This becomes inoperative when the fat content of the diet is reduced to 10 per cent.

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CHRONIC ORTHOSTATIC HYPOTENSION

(Continued from Page 1373)

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Prepare for Cardiac Arrest Victims

Prompt informed team action and adequate equipment which can be quickly assembled are the essentials of a successful hospital resuscitation program for cardiac arrest.

Police and fire emergency squads, ambulance drivers, first aid personnel and other lay people are already being taught closed chest cardiac massage and mouth to mouth breathing as procedures to be used in persons who seem to have just died. An increasing number of cases of sudden death will be brought to hospital emergency rooms. Some of these may prove reversible.

It is our duty as physicians to quickly arrive at a diagnosis and institute definitive treatment.

Positive pressure ventilation and external chest compression must be continued while equipment is being assembled. An electrocardiograph or oscilloscope is needed to establish the cardiac rhythm. When ventricular fibrillation exists, an external defibrillator is needed. Otherwise, the chest must be opened for internal defibrillation. An external pacemaker may be useful in cardiac standstill not responding to chest compression alone. An emergency drug kit should be assembled in advance. This should include the medications needed for all types of complications.

The Michigan Heart Association, 13100 Puritan, Detroit, through its Committee on Closed Chest Cardiac Resuscitation, is ready to provide further training in the management of cardiac arrest through external cardio-pulmonary resuscitation to hospital teams. Training programs have also been developed for dental and nursing groups, and in addition for selected rescue personnel at the request of their medical director.

LARRY H. BIRCH, M.D.



Thank You!

This number of THE JOURNAL is devoted to the effective work of the Michigan Heart Association. Appreciation is sincerely expressed for the cooperation of John C. Bielawski, M.D., Detroit, Medical Director for the Association.

The October number of THE JOURNAL focused attention on Diabetes and we are indebted to Fred W. Whitehouse, M.D., Detroit, Chairman of the Diabetes Committee of the Michigan State Medical Society, for his assistance.

Congratulations AAMA

One of the major accomplishments at the American Association of Medical Assistants in Detroit in September was to advance the AAMA's certification program.

The AAMA's educational self-improvement program leading to certification for women employed as medical secretaries and assistants in physicians' offices got off to a running start. The new certifying board, made up of physicians, educators and medical assistants, met for the first time to map tentative plans for presenting the certification examination next year.

Mary Kinn, Santa Ana, California, chairman of the certifying board, revealed plans to offer the examination two days prior to the 1963 convention simultaneously in three locations—Kansas, California and Miami Beach, the convention city.

"This will give girls unable to attend the convention an opportunity to take the examination in a location convenient to their home towns," Mrs. Kinn said.

The certifying board also announced that professional assistance will be secured for administering and grading the examinations.

Twenty-two Michigan medical assistants took the pilot test this year at Wayne State University, prior to the convention, and results of the tests will be provided to the board to assist in polishing the final exam.

The Michigan Medical Assistants Society, host for the 1962 National convention, has been one of the leading units in educational programs.

Loans Help Future M.D.'s

There are 55,000 medical students, interns and residents presently in training to become physicians. . . . Most of them are short of money. . . . Some of them are so short of money they may not be able to complete their training unless they get help. And the medical profession, through the American Medical Association's Education and Research Foundation, has worked out a plan of guaranteeing bank loans to medical students, interns and residents. The AMA in effect becomes co-signer of a long-term note at reasonable interest rates. The note is to be paid off after education is completed and the physician has begun practice.

The banks, in keeping with good banking practice, require that the AMA post some money as insurance against loss. The AMA fund puts up one dollar for each twelve and a half dollars loaned.

The AMAERF program was started in February, 1962. In the first six months of the program, 3,318 young men and women borrowed more than $6,000,000. During that same period, thousands of physicians and others invested almost $700,000 in the loan guarantee fund.

Loans were made in 49 states, to students in 81 different medical schools and to interns and residents in 320 different hospitals. About two-thirds of the money went to students, and the other third to interns and residents.

Contributions to the Education and Research Foundation of the AMA are tax deductible. Checks should be payable to the Education and Research Foundation of the AMA, and mailed to 535 North Dearborn Street, Chicago.

Congress Held by Conservatives

(Excerpts from newspaper column, November 8, 1962 by David Lawrence)

President Kennedy did not get his wish. He campaigned harder than any other chief executive in history to get an increased majority of his party in both houses of Congress, but the voters did not grant his request.

The coalition of conservative Republicans and Democrats, therefore, remains in control of both houses. Radicalism is checked again. Business can breathe easier. For, if the Democrats had made substantial gains in both houses of Congress, the stock market would have broken badly and there would have been predictions of a deeper recession in 1963 than now is anticipated.

All talk of "net gains"—by mathematically putting together the Senate and House victories of the Democrats—doesn't alter the fact that it needs only a coalition in one house to block radical legislation. This barrier exists more firmly today than ever before against unsound fiscal policies and proposals which, if enacted, would discourage and retard business progress.

As for the congressional elections, the most important result was the failure of the President to win an increased majority in the House of Representatives. It matters little that the Democrats point out with satisfaction that they lost less than in any off-year election for Congress since 1934. What is important, however, is that they did lose seats. For this is 1962, and the biggest single issue that faces the country is the need to achieve fiscal soundness and to put a stop to excessive spending of public funds and the hostility toward the free-enterprise system which emerge in those legislative proposals of the administration and which a coalition of conservative Republicans and Democrats thus far has managed to defeat.

Health Council Meeting Soon in Ann Arbor

The Annual Michigan Health Council State Conference, December 4-5, at the Michigan Union, Ann Arbor, will develop a theme "Home Care in Michigan."

The Conference will feature outstanding speakers on coordinated home care programs and workshops to discuss the progress and potential of coordinated home care programs in rural settings, town settings and city settings.

Sidney E. Chapin, M.D., Dearborn, Chairman of the Home Care Committee, will give the keynote address Tuesday morning, December 4. Doctor Chapin, immediate past president of the Michigan Health Council, is also medical advisor to the Visiting Nurses Association of Detroit.

Bruno Gebhard, M.D., Director of the Cleveland Health Museum, will be the December 4 luncheon speaker, and Robert Haakenson, Ph.D., of Philadelphia, Director of Community Relations, Smith, Kline & French Laboratories, will be the banquet speaker, December 4.

On December 5, Charles J. Tupper, M.D., Associate Dean of the University of Michigan Medical School and Chairman of the Health Careers Committee of the Michigan Health Council, will be chairman. Albert E. Heustis, M.D., State Health Commissioner, will be principal speaker and discuss: "Health Manpower—Opportunities and Needs." Health Council and Auxiliary members from several Michigan communities will give reports on health career recruitment programs that have met with success in their areas. In the afternoon, special tours of the Medical Center will be taken.

The entire conference will be open to the general public and Wm. S. McNary, President of the Michigan Health Council, predicts that this will be the largest conference in the history of the Council.

A complete program can be secured by writing to the Michigan Health Council, P.O. Box 431, East Lansing.

MAP Congress Dates Set for Lansing, February 8-9

The dates of February 8 and 9, 1963, have been selected for the Fourth Annual "Congress of the Professions."

"This 1963 Michigan Association of the Professions annual meeting will be held in Lansing at the Jack Tar Hotel," reports N. O. Saulter, P.E., President of MAP.

"Every member of the seven state professional associations affiliated with MAP is urged to participate," points out Mr. Saulter. "Each year," he reports, "we have drawn a significant number of non-members and visitors." MAP membership is not a requirement for attendance.

The Congress planning committee currently is completing the program for the impressive event. The first two MAP Congresses were held in Detroit and the 1962 event was staged at Kellogg Center in East Lansing.



Respiratory Diseases Target for Campaign

"Cough too much?" "Short of breath?"

These two questions will be asked next spring from coast to coast, from border to border, to alert people to two symptoms of chronic respiratory disease—and to convince them that they should consult their doctor about the symptoms.

The questions will be raised in connection with a nationwide educational campaign by the National Tuberculosis Association and its affiliated associations from May through June 15, 1963. This will be their first nationwide educational campaign, according to James E. Perkins, M.D., managing director, who said it was being planned because of the increasing threat to health represented by respiratory diseases.

"The purpose of the approaching campaign is to get people to realize that two common symptoms—shortness of breath and persistent coughing—may be warning signs. We shall not put on a campaign to alarm people and we shall explain that shortness of breath is normal under certain conditions, just as coughing can be associated with a cold and will disappear with the cold. But we do want people to seek medical advice—from their own physician—if these two symptoms persist without any apparent cause. As with our tuberculosis campaign, we are emphasizing early detection to prevent serious disability," said Dr. Perkins.

Elect 11 Physicians To Blue Shield Board

Eleven physicians and four laymen were elected to the Board of Directors of Michigan Medical Service at the 22nd Annual Meeting in Detroit.

Six were re-elected to the Board whose number was increased from 33 to 35, its legal limit.

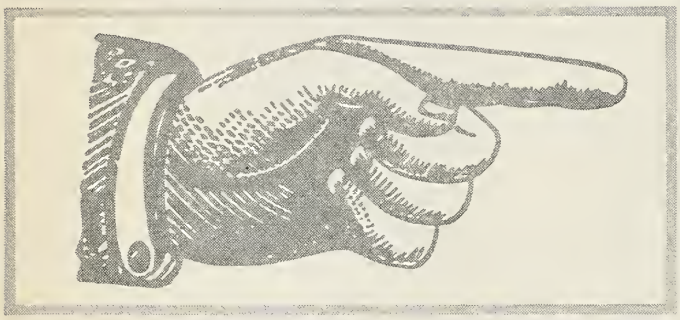
Physicians re-elected were: Allan K. Cameron, M.D., of Saginaw; A. Jackson Day, M.D., of Detroit; and Donald N. Sweeny, Jr., M.D., of Detroit for three-year terms; Ralph R. Cooper, M.D., of Detroit for a two-year term.

Newly-elected physicians were: William Carpenter, M.D., of Detroit; James D. Fryfogle, M.D., of Southfield; Louis F. Hayes, M.D., of Gaylord; Fred C. Ryan, M.D., of Kalamazoo; Charles J. Tupper, M.D., of Ann Arbor; and Walter Zimmerman, M.D., of Royal Oak, all for three-year terms, and George T. Bradley, M.D., of Detroit, for a one-year term.

The two public members elected were: James M.



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Gillen of Detroit, re-elected to a three-year term, and Jason L. Honigman of Detroit, elected for a three-year term.

Neil McGinniss of Dearborn and Bernard E. Lorimer of Midland were elected to one-year terms as representatives of Michigan Hospital Association.

Mrs. Taylor to Lead Woman's Auxiliary

Mrs. Ross V. Taylor of Jackson has started her year of leadership as president of the Woman's Auxiliary to the Michigan State Medical Society for 1962-63. She was installed at the Auxiliary Annual Convention in Detroit to succeed Mrs. Clarence I. Owen.

Elected at the convention as president-elect to serve in 1963-64 was Mrs. R. J. Himmelberger, of Lansing.

Officers serving with Mrs. Taylor are as follows:

First Vice President—Mrs. Milton Weed, Grosse Pointe
Second Vice President—Mrs. R. H. Reitzel, Mt. Clemens
Recording Secretary—Mrs. Ernest P. Griffin, Flint
Corresponding Secretary—Mrs. W. A. Joerin, Jackson
Financial Secretary—Mrs. Kenneth E. Fellows, Grand Rapids
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District VI—Mrs. H. J. Burkholder, Alpena
District VII—Mrs. Gerald Drake, Petoskey
District VIII—Mrs. Louis Rosenbaum, Ishpeming
District IX—Mrs. John Heidenreich, Daggett
Members-at-Large
Coordinator—Mrs. Albert W. Myers, Potterville
Parliamentarian—Mrs. John Ganchow, Huntington Woods

AAMA Elects Mrs. Stahl, Doctor Millard to Serve

Delegates attending the sixth annual meeting of the American Association of Medical Assistants September 26-30 elected Mrs. Reta V. Stahl, Albion, to a three-year term on the Board of Trustees. The nine-member Board plus five elected officers govern the activities of the association's 34 affiliated state societies now numbering over 10,000 persons.

Mrs. Stahl served as chairman of the national convention at the Statler Hilton Hotel in Detroit. She is a past president of both Calhoun County Medical Assistants Society and Michigan State Medical Assistants Society. She has also served as recording secretary of MSMAS and is currently public relations chairman.

Glenn E. Millard, M.D., Detroit, was appointed to

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a three-year term on the AAMA Advisory Committee. Dr. Millard has been a member of MSMAS Advisory Committee for the past four years and has served as chairman of that committee for the past two years.

MSMAS members who will be working on AAMA committees this year include Mrs. Betty Lou Willey, Port Huron; Miss Cecile Rutan, Hanover; Miss Phyllis Marquardt, Kalamazoo, and Mrs. Ruth Trimm, Ann Arbor.

Nearly 450 medical assistants attended the convention to hear talks by physicians, professional management experts and educators. George M. Fister, M.D., president of the American Medical Association, addressed the group at its banquet.

Miss LaPres To Lead Medical Assistants

Miss Catherine LaPres, of Muskegon, has taken over leadership of the Michigan State Medical Assistants Society for 1962-63. She was installed in Detroit at the recent MSMAS convention to succeed Miss Cecile Rutan, of Hanover.

The MSMAS convention chose Mrs. Dorothy Brandis, of Lansing, as president-elect for 1963-64.

Others selected at the convention were Miss Esther Bartlett, Detroit, as vice-president; Mrs. Marie Nielsen, Muskegon, secretary, and Mrs. Betty Lou Willey, Port Huron, treasurer.

Heads Public Health Officers Association

E. J. Brenner, M.D., Mt. Pleasant, will serve as president of the Michigan Health Officers Association for 1962-63. Doctor Brenner has been director of the Central Michigan District Health Department for the past six years.

Doctor Brenner succeeds Irwin Street, M.D., Gladwin.

MYOCARDIAL INFARCTION IN AN INDUSTRIAL CITY

(Continued from Page 1392)

18. Zinn, W. J. and Casley, R. S.: Myocardial infarction; statistical analysis of 679 autopsy-proven cases. Amer J. Med., 8:169, 1960.
19. Rosenberg, B. A. and Malech, M.: Acute myocardial infarction in a city hospital. Amer. J. Cardiol., 7:233, 1960.
20. Lee, K. T., et al: Clinical and anatomic features in 500 patients with fatal acute myocardial infarction. Circulation, 15:197, 1957.
21. Cecil and Loeb: A Textbook of Medicine. pp. 1283-1293; 10 ed.
22. Woods, R. M. and Barnes, A. R.: Factors influencing immediate mortality after acute coronary occlusion. Amer. Heart J., 24:4, 1956.

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oy something good to eat, tasty and
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/e retired to Florida, where they can
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n orange and grapefruit trees. But any
ient anywhere can get the same bene-
fits of the natural vitamin C in Florida oranges, grapefruit, and tangerines . . . thanks to modern methods of processing fresh fruit. Whether it is frozen, canned, or in cartons, 98% of the vitamin C content of the fruit is preserved.

Grapefruit and other citrus fruits filled with vitamin C are valuable in the nutrition of every age group. Among the teen-agers, vitamin C is one of the two nutrients most often low in the diet. Infants, too, need generous amounts of vitamin C; and they will take it readily when it comes to them in the form of delicious orange juice.

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MICHIGAN DEPARTMENT OF HEALTH
ALBERT E. HEUSTIS M.D., State Health Commissioner

Rehabilitation Evaluation Clinics

As the percentage of older people in our population increases, more and more persons are being subjected to disabling chronic diseases associated with advancing age. There are today 650,000 people in Michigan 65 and over and it is estimated that of these about 20 per cent or 130,000 are disabled.

Until comparatively recent times, physical and mental deterioration on the part of the long-term patient was accepted, and little effort was made to rehabilitate the crippled and handicapped victims of accidents and diseases crowding nursing homes and medical care facilities, or bedridden in their homes, a burden to their families.

Custodial Care Traditional

This traditional attitude of passive custodial care of elderly disabled patients existed because there was a lack of knowledge about the restoration potential of these people. When someone suffered a paralyzing stroke, he was put to bed and he stayed there, completely dependent, until he died. But today we know that a significant number of these people can be restored to some degree of independence; ranging from the ability to get from bed to wheel chair unaided, to complete recovery and return to normal life.

But we also know that most of these patients will lose much of their restoration potential if their disabilities are allowed to progress as a result of inactivity and its secondary adverse effects: contractures, ankylosed joints, muscle atrophy, kidney and bladder infections and stones, decubiti, inadequate cardiorespiratory response, and psychological and sociological deterioration.

Team Approach

To help prevent such losses, the Michigan Department of Health in cooperation with local health departments has developed a Rehabilitation Evaluation Clinic Program. This program is a method of approaching the rehabilitation of disabled and chronically ill persons through a coordinated approach involving the separate skills in several specialized fields.

The purpose of these evaluation clinics is to demonstrate to physicians and their patients, nursing home and medical care facility personnel, and community chest voluntary agency personnel that many handicapped patients can be restored to useful lives through early management of their disabilities.

Early Management Essential

It has been our experience that in most communities the bulk of patients suffer neuro-musculo-skeletal disorders as a result of (1) cardiovascular accidents, (2) arthritis, (3) amputations, (4) traumatic disabilities, (5) central nervous system diseases, (6) peripheral neuropathies, and (7) muscular diseases. Practically all such patients can benefit to some degree from physical medicine procedures but to attain maximum benefits early management is essential.

Basic Team

The basic rehabilitation evaluation team consists of a physical therapist, a rehabilitation nurse, a medical-social worker, and a physiatrist. Patients are referred to the clinic program by their physicians. After referral to the clinic the patient is visited by the physical therapist so that he may measure the degree of the physical disability.

The rehabilitation nurse will visit the patient in his home to observe him in the activities of daily life and be able to suggest adaptation to improve his ability to care for himself. The medical-social worker interviews the patient to get comprehensive data on his motivation, family structure, finances, and problems which may influence the rehabilitation program.

The psychiatrist reviews these reports and in consultation with the other members of the team sees the patient and makes recommendations to the private physician for his use in the care of the patient.

Renewed Life

These recommendations may include: physical therapy, occupational therapy, speech therapy, or psychological counselling depending upon the patient's needs, as well as continued medical supervision.

For many people this team approach making use of the skills of several disciplines can mean the beginning of a renewed life, a chance to walk again, to put useless hands to work, to speak, and even to smile again.

Further information about these programs can be obtained by writing to John A. Cowan, M.D., Director, Division of Tuberculosis and Adult Health, Michigan Department of Health, Lansing 4, Michigan.



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Pathology Comment

Items published here are provided by the Michigan Pathological Society

Are the Technical Staffs of the Clinical Laboratories Which Serve You Competent?

Modern physicians place great reliance on the results of laboratory examinations. Since many of these studies are performed by technical personnel in the laboratory, the skill and integrity of these personnel is of prime consideration in evaluation of the results and correlation with patient progress and treatment.

An erroneous laboratory report is worse than none, for it may give the physician a false direction which might have been avoided had he relied only on clinical judgment.

Surveys of medical laboratories in many areas of the country during recent years indicate the need for continuous and improved methods of quality control. Invariably, these surveys have indicated that the most significant factor relating to erroneous laboratory determinations is the employment of poorly trained and inadequately supervised laboratory workers.

The best assurance that a clinical laboratory is performing its function accurately lies in the employment of adequately educated and trained laboratory workers. *All physicians* should be vitally concerned with this problem since it is so important to the care of their patients. Each physician can materially aid in the continuing improvement of laboratory medicine by becoming acquainted with the essential educational requirements of medical laboratory workers, and then insisting that the laboratories on whom he depends for laboratory studies be staffed with technologists meeting these requirements. He should further counsel students interested in the profession of Medical Technology to pursue the *right* course of study.

The minimum qualifications acceptable to the council on Medical Education and Hospitals of the American Medical Association is three years of college study with emphasis in chemistry and the biologic sciences, followed by a year of practical and correlative study in an approved hospital school of Medical Technology. These are also the minimum requirements necessary for examination by the Registry of Medical Technologists of the American Society of Clinical Pathologists, which is the *only* accrediting board for Medical Technologists recognized by the medical profession.

If one employs inadequately trained workers in a medical laboratory, the results will only reflect this inadequacy. Modern laboratory medicine is a highly technical profession involving many scientific disciplines, and only those individuals with adequate educational background and training in these disciplines are capable of serving physicians and their sick patients wisely and well.

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Many Honors Received By Michigan Doctors

NATIONAL PRESIDENT—M. Duane Sommerness, M.D., Traverse City, is the new president of the Association of Medical Superintendents of Mental Hospitals, installed at the organization's annual convention in Miami Beach. Dr. Sommerness is the Medical Superintendent of the Traverse City State Hospital.

HEADS NATIONAL ACADEMY—Max K. Newman, M.D., Detroit, is the new president of the American Academy of Physical Medicine and Rehabilitation, installed at their annual meeting in New York City. Dr. Newman also presented two papers entitled, "Muscle Tone, Muscle Weakness and Muscle Wasting in the Aged" and "A Study of Peripheral Neuropathy in Rheumatoid Arthritis." He also presented a film with reference to Muscular Dystrophy entitled, "The Impossible Takes Longer."

SELECTIVE SERVICE NOTE—Physicians selected for Army internships and recently graduated dentists will be called to active duty in temporary grade of captain, the Department of Army has announced. Effective 1 July 1963, the new policy will replace the current practice of advancing such officers to captain one year after graduation from medical or dental school.

CITED BY ARMY—Edward Treisman, M.D., Detroit, recently received the United States Army Commendation Medal and Pendant with Citation for Meritorious Service. He served as chief of surgery for two years at the Redstone Arsenal in Huntsville, Ala.

COMMUNITY SAYS "THANKS"—G. J. Kemme, M.D., Drenthe, was honored at a community event for completing 30 years of service to Ottawa County. Area residents presented him with a plaque citing him for his faithful work.

HONORED BY CHURCH—J. L. Leach, M.D., Flint, was presented a certificate of merit at the 76th annual session of the Michigan Conference of the African Methodist Episcopal Church. The citation was presented by Bishop Joseph Gomez in recognition of Dr. Leach's "outstanding religious and community service." He has been especially active in reviving the church's Layman's Organization for Youth.



HONORARY FELLOWSHIP—The International College of Surgeons bestowed an Honorary Fellowship upon Albert D. Ruedemann, M.D., Detroit, at its International Congress in New York recently. Dr. Ruedemann is president-elect of the American Academy of Ophthalmology & Otolaryngology. Dr. Ruedemann was an instructor on Ophthalmologic Surgery, lectured on "Do's and Don'ts in Ophthalmic Surgery," and conducted a discussion of "Odds and Ends in Ophthalmic Surgery" during the Congress.

NEW APPOINTMENT—Oreon K. Timm, M.D., Deputy to the Veterans Administration's Assistant Chief Medical Director for Operations and formerly at the Battle Creek VA Hospital, has been appointed the VA Assistant Chief Medical Director for Professional Services at the VA Central Office in Washington, D. C.

GRANTS AVAILABLE—The Association of American Medical Colleges will accept applications from medical students for grants to enable them to broaden their medical knowledge by serving at remote medical stations in Africa, Asia, and Latin America. For the fourth year Smith, Kline & French Foreign Fellowships for Medical Students are being offered to junior and senior students in U. S. medical schools. The closing date for filing applications is December 31, 1962.

MEETINGS USA

December

American Academy of Dermatology, Palmer House, Chicago, Dec. 1-6. Robert R. Kierland, M.D., First National Bank Bldg., Rochester, Minnesota, Secretary.

American Association for the Advancement of Science, Philadelphia, Dec. 26-31. R. L. Taylor, M.D., 1515 Massachusetts N.W., Washington 5, D.C.

January

American Academy of Orthopaedic Surgeons, Americana Hotel, Bal Harbour, Miami Beach, Jan. 20-25. Charles V. Heck, M.D., 29 E. Madison, Chicago 2, Secretary.

February

American Academy of Occupational Medicine, Sheraton-Lincoln Hotel, Indianapolis, Feb. 6-8. Gordon M. Hemmett, M.D., 343 State, Rochester 4, N.Y., Secretary.

American College of Cardiology, Hotel Ambassador, Los Angeles, Feb. 28-March 4. David Scherf, M.D., 55 East 86 St., New York 28, Secretary.

American College of Radiology, Drake Hotel, Chicago, Feb. 6-9. Wm. C. Stronach, 20 North Wacker, Chicago, Executive Director.

American Society of Clinical Pathologists, New Orleans, Feb. 14-16. Miss Eleanor F. Larson, 445 N. Lake Shore, Chicago 11, Executive Secretary.

College of American Pathologists, Rice Hotel, Houston,

(Continued on Page 1416)

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(Continued from Page 1414)

February 28-March 3. Ernest E. Sunard, Box 136, Salinas, California, Secretary.

Congress on Medical Education, Palmer House, Chicago, February 2-6. Walter S. Wiggins, M.D., 535 N. Dearborn, Chicago 10, Secretary.

March

American Academy of Allergy, The Queen Elizabeth, Montreal, Quebec, March 12-14. Paul M. Seebohm, M.D., University Hospitals, Iowa City, Secretary.

American Academy of General Practice, Chicago, March 29-April 5. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Director.

American College of Allergists, The Americana, New York, March 17-22. D. Joseph Parsons, M.D., 1405 E. High St., Springfield, Ohio, Secretary.

American Industrial Health Conference, Washington, D.C., March 18-21. Industrial Medical Assoc., 55 East Washington, Chicago 2.

American Society of Internal Medicine, Brown Palace Hotel, Denver, March 29-31. Mr. Albert V. Whitehall, 3410 Geary Blvd., San Francisco 18, Executive Director.

April

Aerospace Medical Association, Statler-Hilton, Los Angeles, April 29-May 2. William J. Kennard, M.D., Aerospace Medical Association, Washington National Airport, Washington 1, D.C., Secretary.

American Academy of Neurology, Leamington Hotel, Minneapolis 17, April 22-27. Charles A. Kane, M.D., 80 E. Concord, Boston, Secretary.

American Association of Pathologists & Bacteriologists, Netherlands Hilton Hotel, Cincinnati, April 26-28. John R. Carter, U. of Kansas Medical Center, Kansas City 3, Secretary.

American Association for Thoracic Surgery, Shamrock Hilton, Houston, April 8-10. Henry T. Bahnson, M.D., Johns Hopkins Hospital, Baltimore 5.

American College Health Association, Muehlebach Hotel, Kansas City, Mo., April 23-26. Ruth E. Boynton, M.D., 5513 Merrick Dr., Coral Gables 46, Fla., Secretary.

American College of Obstetricians and Gynecologists, Statler Hilton, New York, April 21-24. Craig W. Muckle, 1806 Garrett Rd., Landsdowne, Pa.

American College of Physicians, Denver-Hilton, April 1-5. Edward C. Rosenow, Jr., M.D., 4200 Pine St., Philadelphia 4, Executive Director.

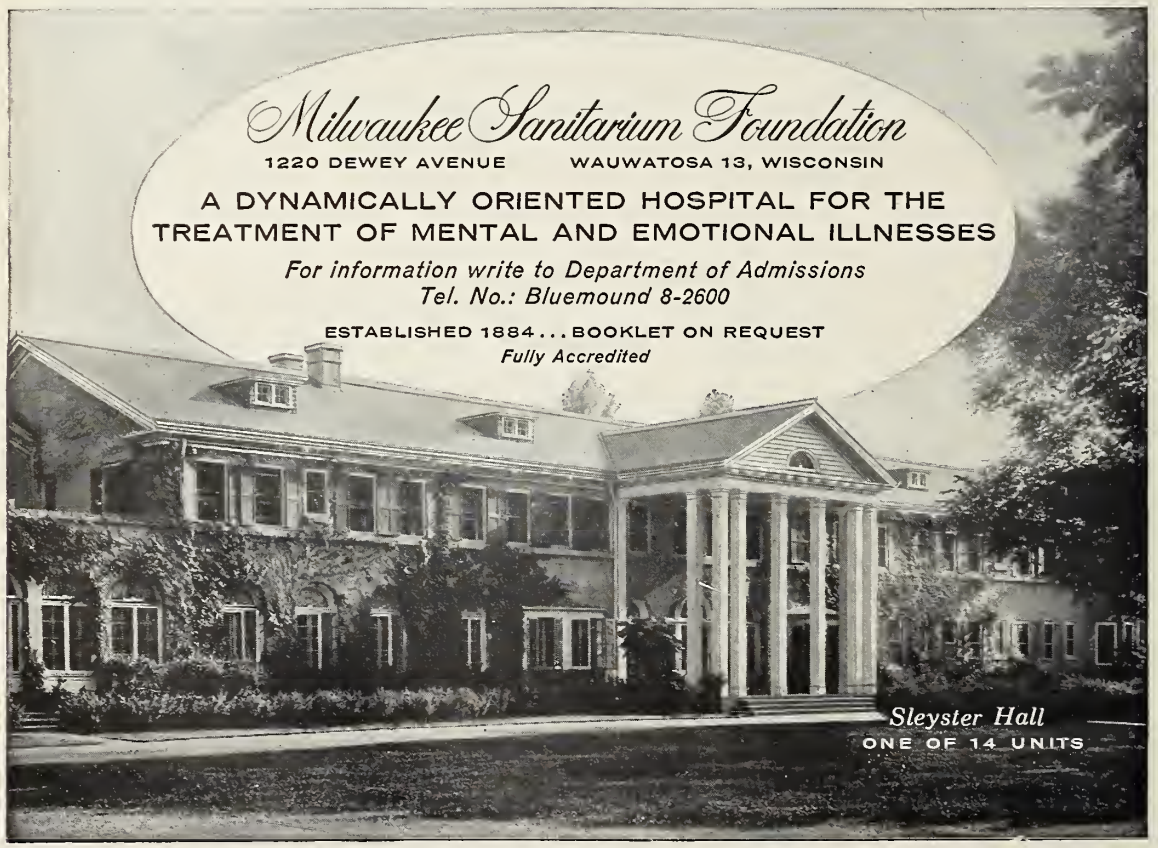
American Dermatological Association, Hot Springs, Va., The Homestead, April 15-18. Wiley M. Sams, 308 Ingraham Building, Miami 32, Secretary.

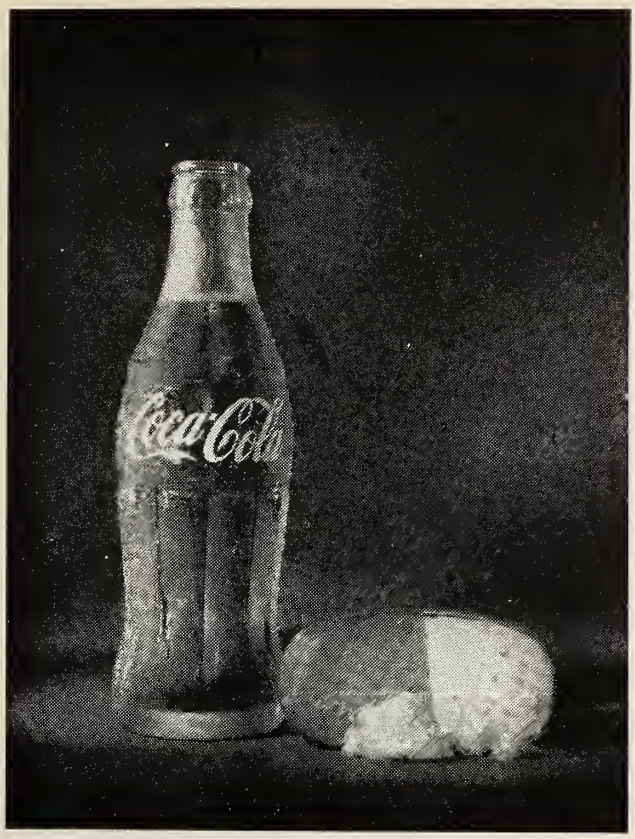
American Otological Society, Hollywood Beach Hotel, Hollywood, Fla., April 26-27. James A. Moore, 525 E. 68 St., New York 21, N.Y., Secretary-Treasurer.

American Physiological Society, Ambassador, Atlantic City, N.J., April 16-20. R. G. Daggs, 9650 Wisconsin Ave., Washington 14, D.C., Executive Secretary.

American Radium Society, Mark Hopkins Hotel, San

(Continued on Page 1418)





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(Continued from Page 1416)

Francisco, April 1-4. Justin J. Stein, M.D., University of California at Los Angeles, Secretary.

American Surgical Association, Westward Ho Hotel, Phoenix, April 3-5. W. A. Altemeier, Cincinnati General Hospital, Cincinnati 29, Secretary.

Association of American Physicians, Chalfonte-Haddon Hall, Atlantic City, April 30-May 1. Eugene A. Stead, Jr., Duke Hospital, Durham, North Carolina, Secretary.

International College of Surgeons North American Federation, Ambassador Hotel, Los Angeles, April 21-25.

Iowa Medical Society, Savery Hotel, Des Moines, April 21-24. Donald L. Taylor, 529 36th Street, Des Moines 12, Iowa, Executive Director.

TO AID HANDICAPPED—Grants from the Easter Seal Research Foundation and the U. S. Office of Vocational Rehabilitation have established a National Institute on Services for Handicapped Children and Youth to identify and promote the principles and practices that undergird effective working relationships among the multitude of public and voluntary agencies serving the crippled in this country.

ADDRESSES HEALTH COUNCIL—The Garden City Health Council heard Alice E. Palmer, M.D., Detroit, speak on "Medical Care" at its September meeting. A question and answer period followed the talk.

TESTS SOON—The American Board of Obstetrics and Gynecology reports that the next scheduled Part I (written) examination of this Board will be held at various examining centers in the United States, December 14. Information may be obtained by writing to: Robert L. Faulkner, M.D., Executive Secretary and Treasurer, 2105 Adelbert Road, Cleveland 6.

ELECTED—Rosser L. Mainwaring, M.D., Dearborn, was elected to the board of the American Society of Clinical Pathologists at its annual meeting.

Robert W. Coon, M.D., University of Vermont, Burlington, Vermont, was named president-elect to take office at the annual meeting next September, to be held again in Chicago.

SERVES IN AFRICA—Albert Snyder, M.D., Grand Rapids, is now serving with the Greenville Mission Hospital in the Union of South Africa, under orders from the Free Methodist Church. Doctor Snyder and one other doctor will staff the village mission hospital there.

PUSH VOLUNTARY WAY—The role of the voluntary health agency in today's complex network of organized health activities is the subject of a new booklet published by the National Health Council. The publication, "Voluntaryism and Health," interprets the programs of the health agencies and their affiliates and discusses the interplay

(Continued on Page 1420)

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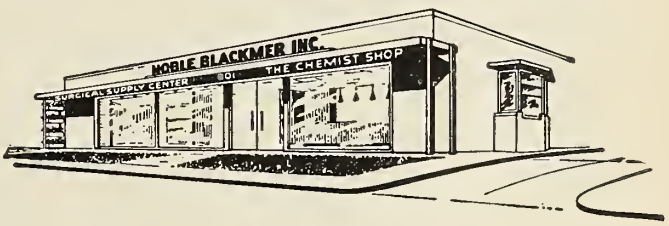
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(Continued from Page 1418)

of voluntary and governmental agencies. Single copies are available free from the Publications Section, National Society for Crippled Children and Adults, 2023 W. Ogden Ave., Chicago 12.

WAYNE SEMINARS ANNOUNCED

Two Wayne State University College of Medicine seminars beginning in November will continue through the winter. These Postgraduate Seminars in Psychiatry are co-sponsored by the Michigan Academy of General Practice.

Seminar in Pediatric Psychiatry

Place: Room 149, Lafayette Clinic, 951 E. Lafayette, Detroit.

Time: 7:00-8:30 p.m. each Thursday, beginning November 29, 1962, through April, 1963 (20 sessions).

Tuition: None (National Institute of Mental Health Grant covers cost).

Credit: Category I credit for A.A.G.P. members.

Eligibility: All physicians with a pediatric practice are invited to enroll up to a limit of twenty-five.

Enrollment: Contact Paul Lowinger, M.D., Psychiatric Service, Detroit Memorial Hospital, 1420 St. Antoine, Detroit 26. Woodward 1-4461.

Seminar in Psychiatry

Place: Room 149, Lafayette Clinic, 951 E. Lafayette, Detroit.

Time: 7:00-9:00 p.m. each Tuesday beginning November 20, 1962, through April, 1963 (21 sessions).

Tuition: None (National Institute of Mental Health Grant covers cost).

Credit: Category I credit for A.A.G.P. members.

Eligibility: All physicians, whether in general or specialty practice, are invited to enroll.

Enrollment: Contact Paul Lowinger, M.D., Psychiatric Service, Detroit Memorial Hospital, 1420 St. Antoine, Detroit 26. Woodward 1-4461.

EXPRESSES CONCERN ABOUT VD INCREASE

William F. Schwartz, education consultant to the venereal disease branch of the U.S. Public Health Service, reports that, "an estimated 200,000 or more of our young people under age 20 are contracting a venereal disease annually," he said. "These range from the lowest to the highest socio-economic groups. Often they are children of good families and respectable neighborhoods—children who are almost unbelievably ignorant of the hazard of venereal infection or of what to do should they become infected."

The U. S. health expert reports every major religious body has endorsed sex education in the schools but the subject "unfortunately remains, for the majority of our citizens, almost as controversial as it was 30 years ago."



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Michigan Authors

W. R. Eyler, M.D., M. D. Clark, M.D., and R. L. Rian, M.D., Detroit, "An Evaluation of Roentgen Signs of Pancreatic Enlargement," *Journal of the American Medical Association*, September 15, 1962.

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R. H. Nishiyama, M.D., R. W. Schmidt, M.D. and J. G. Batsakis, M.D., Ann Arbor, "Carcinoma of the Thyroid Gland in Children and Adolescents," *Journal of the American Medical Association*, September 22, 1962.

Sylvester E. Gould, M.D., Eloise, "Lesions of the Coronary Arteries of Surgical Interest," *Ohio State Medical Journal*, September, 1962.

William S. Haubrich, M.D., Detroit, "Laparoscopy (Peritoneoscopy) with Endo-Photography and Guided Liver Biopsy, I.," *American Journal of Gastroenterology*, September, 1962.

Gustav A. Uhlich, M.D. and William S. Haubrich, M.D., Detroit, "Laparoscopy (Peritoneoscopy) and Guided Liver Biopsy, II.," *American Journal of Gastroenterology*, September, 1962.

J. B. Wear, Jr., M.D., Madison, Wis., Robert Shanahan, M.D. and R. K. Ratliff, M.D., Ann Arbor, "Toxicity of Ingested Hexachlorophene," *Journal of the American Medical Association*, August 18, 1962.

Elliott D. Luby, M.D., Detroit, "Good Grief and Bad," *American Practitioner*, August, 1962.

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POINTS TO PROBLEM

One of the critical problems facing medicine today is the growing tendency of the working man to equate health care with a municipally owned service while at the same time demanding discount-house prices.—JUSTIN C. SMITH, Dean, Law-Medicine Center, Western Reserve University.

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IN MEMORIAM

LEO G. CHRISTIAN, M.D., 74, Lansing physician since 1923, died September 1, 1962. A graduate of St. Louis University Medical School in 1912, Doctor Christian interned at Wabash Hospital, Moberly, Mo. He began practice in Lansing in 1923 after having practiced in Rock Springs, Wyoming, Houghton and Westphalia.



A past chief of the department of medicine and past chief of the medical staff at St. Lawrence Hospital, Doctor Christian was on the senior staffs at St. Lawrence, Sparrow and Ingham Medical Hospitals.

He was president of Ingham County Medical Society in 1938, delegate to the Michigan State Medical Society 1923-37, chairman of the MSMS Legislative Committee 1937-39, delegate to AMA 1938-51, and a Fellow of the American College of Physicians.

Doctor Christian was a member of the Michigan Hospital Commission and a charter (and honorary) member of the Michigan State Social Welfare Commission.

ALBERT E. CATHERWOOD, M.D., 74, Detroit area obstetrician for 40 years, died September 9, 1962.

Doctor Catherwood, a native of Bay City, came to Detroit in 1910 as a medical student. He graduated from the University of Michigan and Wayne State University College of Medicine and had practiced in the city for over 40 years.

He was a diplomate of the American Board of Obstetrics and Gynecology and a Fellow of the American College of Surgeons. Former Chief of the Department of Obstetrics and Gynecology at Harper Hospital, he was a past president of the Academy of Medicine and the Wayne State University College of Medicine Alumni Association.

A life member of the Michigan State Medical Society, Doctor Catherwood was an associate member of the Central Association of Obstetrics and Gynecology and the Michigan Society of Obstetrics and Gynecology. During World War I, he served as a captain in the Medical Corps. He was a member of the Children's Aid Society for 10 years.

MICHAEL E. CHRISTOPHER, M.D., 33, Pontiac orthopedist, died August 31, 1962.

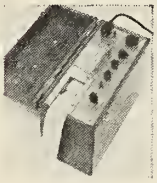
A graduate of Notre Dame University and the University of Michigan Medical School, Doctor Christopher was on the staffs of St. Joseph Mercy Hospital and Pontiac General Hospital.

RUBIE R. GOLDSTONE, M.D., 75, Detroit physician, died September 14, 1962.

A graduate of Syracuse University Medical School in 911, Doctor Goldstone had been on the staff of Grace Hospital for 50 years. He was a member of the Michigan State Board of Registration in Medicine. In World War I he was a captain in the AEF Medical Corps. He was a former state vice commander of the American Legion.

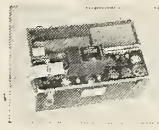
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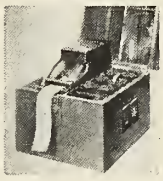
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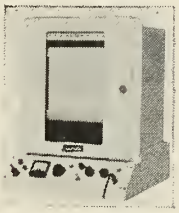
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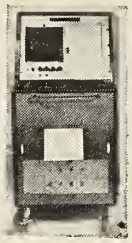


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Editorial Comment

Which One?

(Oakland County Medical Society Bulletin,
October, 1962)

Have you not, as a doctor, been asked to recommend a medical insurance company to your patient, one which will provide him the best coverage at the least cost?

Have you not also completed a case with the patient's understanding of his medical coverage woefully incorrect? Hasn't this same patient blamed you, the physician, feeling you should be a fount of knowledge?

Too often the doctor is stung because of information returned from the insurance company that the policy doesn't cover "this particular item." Too often the patient's blood is chilled as he is caught between cold fact, in the form of unexpected hospital and doctor bills, and rosy fancy, in the form of misunderstanding of what he bought versus what he's getting. He feels he's bought at retail and not even received at wholesale. The cause and effect of the present situation could be explored *ad infinitum*; both are serious and of deep concern to the patient and the doctor. Neither the patient's wallet nor the doctor's integrity can afford the strain.

Logically, then arises the problem of solution. As always, many theories could be probed in depth—one to start with is consideration of a Council of Accreditation on Insurance Companies.

It would attempt to provide all available facts on the various types of coverage, voluntarily supplied by reputable insurance companies. With this information available, such a council could serve three useful purposes:

1. The individual employee voting for group coverage could designate that company which is best for him.
   (a) The elderly worker would not need obstetrical coverage.
   (b) The young healthy single male employee may desire a deductible policy.
2. The mere virtue of submitting facts available for comparison would tend to make the companies more competitive and be a boon to the honest company.
3. It would take the doctor "off the hook" because insurance companies would be more likely to deliver on sales promises. Crooked companies, in effect, would have to "shape up" or fall by the wayside.

Doctors are constantly being evaluated by hospital, professional, business, labor, church, government and insurance organizations—not to mention at the bridge table. Under constant scrutiny ourselves, it may well be time to scrutinize, in turn, and evaluate that which is an integral part of our work-a-day lives. Why shouldn't Oakland County Medical Society be the first society to form a Council of Accreditation on Medical Insurance Companies?

The dearth of accurate information, you'll surely agree, is appalling.

We've cut down the death rate, venereal disease, typhus, poliomyelitis—you name it—

Let's cut out this dearth!

THOMAS S. MCINERNEY, M.D.

Stand Up and Be Counted!

(Journal of the Mississippi State Medical Association, Vol. 3, No. 10)

Each day we are confronted by clamors of the danger of communism, more by clamors of the danger of socialism, and the dangers of the free enterprise system that we have known and enjoyed so long.

We become complacent and assume if the danger were really that great our elected leaders would at least see the light before it is too late.

Able men are leading these fights for our freedom. Many have given up lucrative careers to devote full time to the furtherance of the cause for freedom, but they alone are impotent to accomplish a great deal largely by the paucity of their numbers. Their shouts might be likened to voices in the wilderness. Every intelligent person surely realizes that the preponderance of voices heard by Congress are the voices of pressure groups and those with selfish interests.

We also all realize that we have the most liberal Supreme Court in the history of our nation.

Close home also to us as doctors was the unprecedented active campaigning of a president for legislation—namely, compulsory federal medical care for the aged under Social Security.

This leaves us only the legislative branch for any hope of a constructive change toward freedom for the individual. Many of our legislators are so engrossed in playing along with the party and insuring its preservation in power that they hardly stop to think of the good of the country—in a word, too many politicians and too few statesmen.

Who questions that the more "hand-outs" we accept the weaker we become? When all of our basic material needs are met by federal government, who doubts that the recipients are greatly softened by it? When man is deprived by his government of his bounty and material security attained by the sweat of his brow and his ingenuity, who questions that this



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demoralizing to the very group on whose efforts the actual progress of the country depends?

We are surrounded by defeatists who say, "What can we few do when the mighty forces of big government are against us?" This attitude certainly did not make our country great.

Every day we can make some effort, however small, to familiarize ourselves with the problems involved. We can contribute of ourselves and our resources for constructive causes no matter how small. We can all "stand up and be counted."

Despite the unfavorable publicity that the medical profession is "enjoying" today, we as individuals are respected in our communities. Let's take advantage of this and make some effort toward sound government today.

Medicine's Image-Building Job

(*Tampa Florida Times*)

Dr. George M. Fister, newly elected president of the American Medical Association, is typical—even at the age of 70—of the modern physician. He rejects the image of mysticism which was associated with his profession in years past and recognizes the doctor's present obligations as a public-spirited medical man.

It is important that the public also accept this trend in medical evolution and end its wistful dreams of the "old family physician" who never refused to make a house call and was wise in all matters.

In the first place, the "old family physician" was only wise in all matters because his patients were so thoroughly ignorant in the field of medicine. Quite likely the old-time practitioner would today confess his shortcomings. But in his era, faith in his abilities—limited though they were—was his strongest weapon.

"Old Doc" wasn't fooling himself, but he knew the wisdom of keeping his patients separated from the information that, in many instances, the physician was relatively helpless and that the best medicine available was that inside the patient himself—the will to live, confidence in his doctor and the God-given capacity of the body to fight back against illness.

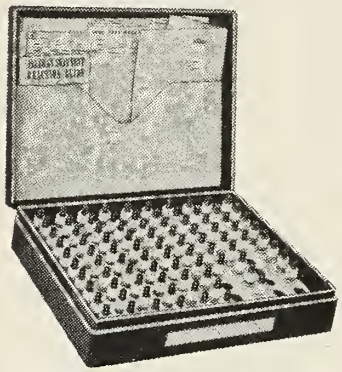
Today, the modern doctor is more mechanic and less mystic. He does not have to sit by helpless while a disease runs its course. There are valuable aids he can provide to assist the body in its battle. There are laboratory tools to pinpoint trouble and there are modern plants where the full force of recent medical achievements may be concentrated for the benefit of the patient. Just as the automobile mechanic works

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best in the garage with his specialized tools, the physician works best in the neighborhood of modern scientific equipment installed in his office, laboratory and hospital. This is one reason why house calls, except in emergencies, are today largely ruled out.

The new AMA chief, Dr. Fister, has spoken out against controls on the medical profession which are implied in proposed federal medical aid plans. And he has said he will spend much of his time during the coming year discussing the controversial subject of Medicare.

We believe his points will be more readily embraced by the public if a better image of the modern doctor is accepted and understood. And, in projecting this image, the physician will aid his cause by improving his concept of his patient, giving him credit for a reasonable amount of intelligence and the ability to discuss his personal case in a language other than medical shorthand.

This dual image-building process might help wipe out those pockets of mistrust and suspicion which currently are separating wide areas of public opinion and the medical profession. And, in doing so, it may prevent this country from falling into the trap of standardized medicine prescribed by a federal bureau instead of at the individual patient-physician level.

The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

BOOKS RECEIVED

POSTPARTUM PSYCHIATRIC PROBLEMS. By James Alexander Hamilton, Ph.D., M.D., Associate Clinical Professor of Psychiatry, Stanford University School of Medicine, Stanford, California; Chief of Service, Psychiatry, Saint Francis Memorial Hospital, San Francisco, California. St. Louis: The C. V. Mosby Company, 1962. Price, $6.85.

PROGLEMS IN SURGERY. From Surgical Grand Rounds at the New York Hospital-Cornell Medical Center. By Frank Glenn, M.D., Lewis Atterbury Stimson, Professor of Surgery, Cornell University Medical College, New York, N.Y.; Surgeon-in-Chief, The New York Hospital-Cornell Medical Center, New York, N.Y. Edited by George E. Wantz, Jr., M.D., Assistant Professor of Clinical Surgery, Cornell University Medical College, New York, N.Y.; Assistant Attending Surgeon, The New York Hospital-Cornell Medical Center, New York, N.Y. Illustrated. St. Louis: The C. V. Mosby Company, 1962. Price, $16.50.

IRRITATION AND COUNTER IRRITATION—A HYPOTHESIS ABOUT THE AUTOAMPUTATIVE PROPERTY OF THE NERVOUS SYSTEM. A Scientific Excursion into Theoretical Medicine. New York—Washington—Hollywood. Vantage Press, 1962. Price, $7.50.

THE ART OF THINKING. By Dagobert D. Runes. New York: Philosophical Library, 1962. Price $2.75.

Letters to the Editor

The Editor will be glad to receive and consider for publication letters containing information of general interest to physicians throughout the State or presenting constructive criticisms on controversial issues of the day.

Clarence I. Owen, M.D.
President, Michigan State Medical Society
Lansing, Michigan

Dear Doctor Owen:

Thank you for your very kind remarks about *S. S. Hope* before the House of Delegates, Tuesday evening. I am sorry that I was unable to thank you personally.

Supporting a program such as the *S. S. Hope* is one that brings credit to both those who encourage this work and of course Hope itself. Being a private, non-profit organization, it needs financial support continually. This can only come about by people knowing about Hope and where to send their money. It means, from a MSMS viewpoint, a source of information, a relay point for doctors who might wish to volunteer. It could mean a source of news releases not coming from Hope in Washington but MSMS in Lansing.

For example, recently we needed a dietician to go to Peru. If there is no one available in my area, I must go to the American Dietetic Association. I am sure that we would have had a Michigan Hospital, a County Medical Society, and MSMS all credited in this voluntary People to People program.

I should appreciate the consideration of the Michigan State Medical Society to assist in bringing this almost vital program to the attention of the people of Michigan. I have faith that our people in Michigan, if they know something is worthwhile, will see fit to support it.

Yours sincerely,
JOHN C. RAWLING, M.D.

Flint, Michigan
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Volume 61 Number 12
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THE COVER

The cover, through the use of the official seals of the Michigan State Medical Society, University of Michigan, and Wayne State University, portrays the cooperative approach to the MSMS postgraduate medical education program.

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L. R. Leader, M.D., Detroit	1963
C. I. Owen, M.D., Detroit	1964
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D. N. Sweeny, Jr., M.D., Detroit	1964

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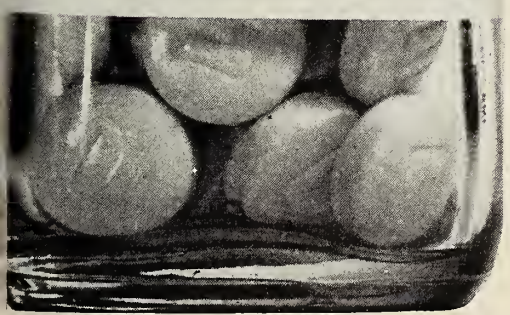


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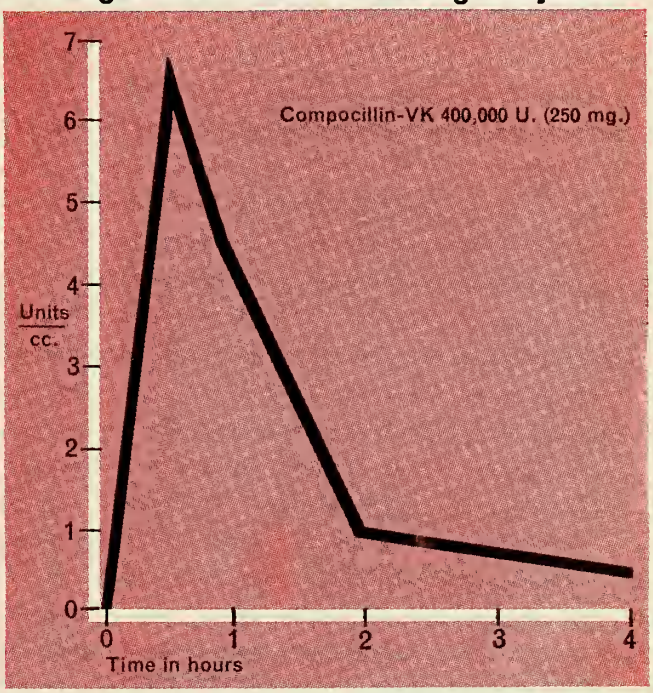
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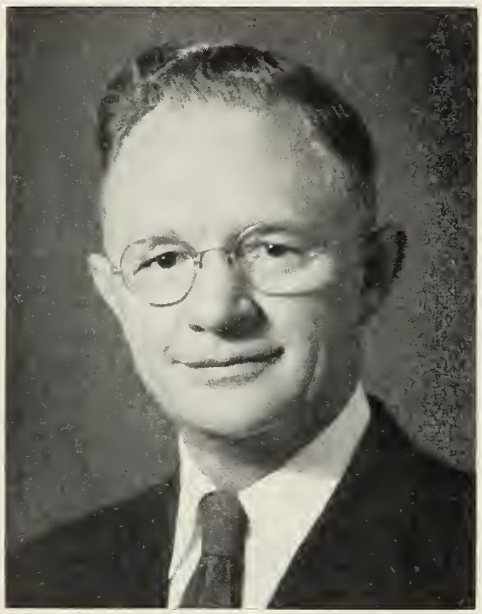
*Chart data from two separate studies completed by the Microbiologic and Medical Departments of Abbott Laboratories.

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President's Page

COMMENDS S.S. *HOPE*



C. I. Owen

Michigan State Medical Society
President

The *Project Hope* hospital-training ship, I believe, is a worthy enterprise and one in which Doctors of Medicine can—and do—serve to good advantage.

Several of our own MSMS members served on the first ship and several others currently are serving on the second ship.

One of the most effective ways for me personally to support this worthwhile American project would be to quote from The United States Congressional Record. Congressman Charles E. Chamberlain, Lansing, had entered into The Congressional Record a letter he had received from John C. Rawlings, M.D., MSMS member now back in Flint.

Following are several excerpts from the letter as it appeared in The Congressional Record:

"I was surprised one day when one of my friends at a local hospital told me how happy the patients were to see the *Hope* doctors from the United States. 'They are pleased,' he said, 'that the United States sends us something besides guns and bullets.'

"Elevation of living standards in Vietnam is the result of prosperity and peace which is not in the forseeable future for this area. Survival, in a country which is fighting a fullscale civil war, seems more important than sound economy. And yet, I wonder if an attempt to unleash the free enterprise system of democracy might be a better weapon against socialism and communism.

"I look back now on my experience with the *Project Hope* with the reassuring thoughts that the basic philosophical concept of this ship is as true and effective as I originally believed. I have thought sometimes of the words of the late Dr. Tom Dooley, 'I believe that easy and condescending charity will destroy an individual's and even a nation's, pride and self respect.' Exchange of friendship and knowledge enriches our lives. The free donation of even medical equipment is difficult to do gracefully. One cannot avoid some resentment, in that, we have the wealth to give."

Service on the people-to-people S.S. *Hope* is an excellent way in which our profession can extend our knowledge to other lands. Others also serve effectively through religious denominations in foreign fields.

We must remember always that our profession is a profession of service; service of ourselves, service of our knowledge and service of our professional abilities.



"Seven Blocks Forward" Theme for 1963 MCI

Medical practitioners find the Michigan Clinical Institute "block system" a convenience so it will be continued at the 1963 MCI, March 13-14-15 at Detroit.

Once again, the scientific information will be "blocked" into segments to permit the busy doctor of medicine to attend the portion of the day that will benefit him the most in better serving his patients.

"Seven Blocks Forward" has been selected for the fitting slogan for the 1963 MCI, to be held at the Sheraton-Cadillac Hotel. The two evening programs, which have proven popular, are counted among the seven blocks. The 1963 block arrangement is as follows:

Wednesday, March 13
- Morning—Surgery
- Afternoon—Trauma
- Evening—Psychiatry

Thursday, March 14
- Morning—Cardiovascular Diseases
- Afternoon—Internal Medicine and Cancer
- Evening—Geriatrics

Friday, March 15
- Morning—Obstetrics-Gynecology

The morning discussion group meetings, started in 1961, will be repeated again but will be effectively renamed as "Clinical Roundables." Subjects of vital interest to doctors will be carefully selected and qualified Michigan doctors will be chosen to lead the discussion and to share their clinical experiences.

George W. Slagle, M.D., Battle Creek, a past president of the Michigan State Medical Society, is serving this year as chairman for the Committee on Arrangements.

Joseph L. Posch, M.D., Detroit, is serving as chairman of the Program Committee.

D. H. Kaump, M.D., Ann Arbor, will serve again as chairman for the Television Committee. The Smith, Kline and French crews and equipment again will present closed-circuit color television.

Special Features Offered at MCI

The participants at the 1963 Michigan Clinical Institute will be offered closed circuit television programs, morning discussion group and evening seminars—in addition to the usual stellar scientific lectures and the fine educational exhibits. Evaluations of previous MCI's are being utilized by the 1963 MCI Committees to even further improve this outstanding postgraduate meeting for MSMS members in Detroit, March 13, 14, 15.





Closed circuit television will be an educational feature of the annual MCI. Shown last year inspecting the equipment are: (left to right) John M. Sheldon, M.D., Detroit; Jack Rom, M.D., Detroit; Robert Reath of Smith Kline & French, and G. B. Saltonstall, M.D., Charlevoix.

* * *

"Clinical Roundtables" will be offered in the mornings. One of the nine 1962 MCI morning discussion groups on Radioisotopes offered, (left to right) John S. DeTar, M.D., Milan; Thomas P. Haynie, M.D., Ann Arbor; Henry N. Wagner, Jr., M.D., Baltimore, and Edward A. Carr, Jr., M.D., Ann Arbor.



Evening seminars are popular at the MCI. The 1962 evening seminar on Geriatrics featured: (left to right) C. Howard Ross, M.D., Ann Arbor; Robert Peterson, New York City newspaper columnist, and A. Hazen Price, M.D., Detroit.

Doctors from 117 Michigan Cities Attended Annual Session

As the statistics are studied from the 1962 MSMS Annual Session, it is interesting to note that a total of 117 Michigan communities were represented by Michigan Doctors of Medicine. This total illustrates without a doubt the effectiveness of the program in drawing busy practitioners from across the state.

The total number of Michigan doctors who registered was 2,091, which included 1,066 from Wayne County and 1,026 from outside of Wayne County. Total attendance was 3,393; with the breakdown shown below. Once again a sizable delegation of 23 doctors attended from neighboring Ontario and 16 came from Ohio. Seventeen states and Washington, D. C., were represented along with Iran and Poland.

In the study of attendance from Michigan cities, it was natural that Detroit should lead with 687. The other top cities included Grand Rapids 70, Flint 67, Lansing 58, Ann Arbor 48, Pontiac 40, Dearborn 39, Saginaw 36, Kalamazoo and Grosse Pte. 32 each, Battle Creek 28, Jackson 24, Bay City 23, Muskegon 22, Birmingham 20.

Among the cities that had 10 to 19 doctors participating were: Midland, Monroe, Mt. Clemens, Oak Park, Port Huron, Royal Oak, Warren, Wyandotte and Ypsilanti.

Among those with between five and nine in attendance were Albion, Alma, Cadillac, Durand, East Lansing, East Detroit, Eloise, Grosse Pte. Farms, Grosse Pte. Woods, Holland, Howell, Lapeer, Lincoln Park, Livonia, Petoskey, Plymouth, Roseville, Southfield, St. Clair Shores, Traverse City and Wayne.

Specialties were represented as follows:

Specialty	*Michigan Physicians Outside Wayne County*	*Wayne County Physicians*
Anesthesiology	29	25
Dermatology-Syphilology	9	18
Gastroenterology-Proctology	9	13
General Practice	329	225
Medicine	85	115
Nervous and Mental	22	12
Obstetrics and Gynecology	64	98
Occupational Health	22	18
Ophthalmology	21	18
Otolaryngology	9	20
Pathology	27	49
Pediatrics	35	40
Public Health	22	6
Radiology	21	13
Surgery	114	105
Urology	15	22
Not Listed	77	60
Interns and Residents	115	209
Totals	1,025	1,066

(See Page 1442 for final registration figures)



MEMBERS OF THE MSMS COUNCIL AND MSMS OFFICERS

Seated, front row *(left to right)*: Secretary D. Bruce Wiley, M.D., Utica; Past-President Otto K. Engelke, M.D., Ann Arbor; Council Vice-Chairman Harold H. Hiscock, M.D., Council Chairman O. B. McGillicuddy, M.D., Lansing; President Clarence I. Owen, M.D., Detroit; President-Elect O. J. Johnson, M.D., Bay City; Speaker J. J. Lightbody, M.D., Detroit; Vice-Speaker J. W. Rice, M.D., Jackson.

Standing, second row *(left to right)*: W. C. C. Cole, Sr., M.D., Detroit; J. R. Dehlin, M.D., Gladstone; W. W. Babcock, M.D., Detroit; W. A. Scott, M.D., Kalamazoo; J. J. Coury, M.D., Port Huron; William S. Carpenter, M.D., Detroit; C. Allen Payne, M.D., Grand Rapids; H. C. Hansen, M.D., Battle Creek.

Standing, back row *(left to right)*: B. M. Harris, M.D., Ypsilanti; David A. Bowman, M.D., Bay City; W. M. LeFevre, M.D., Muskegon; Don W. McLean, M.D., Detroit; Edgar E. Martmer, M.D., Grosse Pointe, A. Carl Stander, M.D., Saginaw; Robert J. Mason, M.D., Birmingham.

Not present when the photo was taken at The Council meeting September 27, 1962, were: Robert V. Daugharty, M.D., Cadillac; D. Roemer Smith, M.D., Iron Mountain, both Councilors; Wm. A. Hyland, M.D., Grand Rapids, Treasurer; and Wilfrid Haughey, M.D., Battle Creek, JOURNAL Editor.

Among MSMS Leaders*



O. B. McGillicuddy M.D.

O. B. McGillicuddy, M.D., Lansing, re-elected at the September organizational meeting of The Council, is serving his second year as Chairman of The Council. Councilor of the Second District (Ingham, Clinton, Jackson, Eaton and Hillsdale), Doctor McGillicuddy served as Chairman of the Finance Committee before his elevation to Chairman of The Council, September 1961.

Serving his first year as Vice Chairman of The MSMS Council is Harold H. Hiscock, M.D., of Flint. He was chosen by Council members at the September organizational meeting to fill the vacancy created when O. J. Johnson, M.D., Bay City, was elected by the 1962 House of Delegates as President-Elect. Doctor Hiscock serves also as Councilor of the Sixth District (Genesee and Shiawassee).



H. H. Hiscock, M.D.



J. W. Rice, M.D.

Also elected in September in Detroit was J. W. Rice, M.D., Jackson, as the new Vice Speaker of the House of Delegates. A delegate from the Jackson County Medical Society and Chairman of the MSMS Medical Care Insurance Committee, Doctor Rice succeeded Harold F. Falls, M.D., Ann Arbor, former Vice Speaker who was not a candidate for re-election.

*The November Journal, in its photo coverage of the 1962 Annual Session, carried photographs of Clarence I. Owen, M.D., Detroit MSMS President, and J. J. Lightbody, M.D., Detroit, Speaker of the House of Delegates.

Michigan Medical Meetings

Eleventh Annual Symposium on Blood, January 18-19, WCMS Headquarters, Detroit.

Michigan Society of Gerontology, January 24-25, Bancroft, Saginaw

Michigan Association of the Professions Congress, February 8-9, Jack Tar, Lansing

Michigan Heart Day, February 8-9, Statler Hilton, Detroit

Michigan Clinical Institute, March 13-14-15, Sheraton Cadillac, Detroit

Canadian-American Medical and Dental Ski Association, March 4-5-6, Iroquois Mountain, Brimley

Medical Maxims

Those with atypical or unusual angina should be investigated for hiatus hernia.

•

Where the classical symptoms are lacking, myocardial infarction may indicate its presence by congestive failure, fainting, effort angina, dyspnea, arterial embolism or circulatory failure from hypotension.

•

Unexplained fever, chest pain or shortness of breath in an older patient confined to bed should arouse the suspicion of pulmonary embolism.

•

Precordial pain is more likely due to heart disease the closer it is to the midline. When outside the nipple line it is not of cardiac origin.

•

In children with appendicitis, peristalsis is either normal or diminished to auscultation, while in acute enteritis it is markedly increased.

—From "711 Medical Maxims II" by W. S. Reveno, M.D.

Annual Meeting Attendance

Final registration figures for the 1962 MSMS annual session were:

M.D.'s (total)		2,163
Guests Affiliated		
Woman's Auxiliary	178	
Nurses	23	258
Technicians	4	
Students	53	
Exhibitors		454
MSMAS		260
Guests		258
Total		3,393

Wayne County Sponsors School Health Conference



The Seventh Conference of Physicians and Schools held at the Wayne County Medical Society featured Delbert Oberteuffer of Ohio State University, who spoke on "Improving the Fitness of Youth," and by Miss Jessie Pergrin, consultant in maternal and child health, Wayne County Department of Health, who spoke on "The Nurse Looks at School Health."

The Conference was an all-day meeting sponsored by the Wayne County Medical Society and the Detroit Pediatric Society. There were 150 participants from various disciplines interested in school health and included representatives from PTA, educators at both instructional and administrative levels, nurses, Department of Health people, representatives from some of the volunteer health agencies, dentists and doctors of medicine.

Six workshops were utilized with reports presented from the various workshops at a closing general session.

Multiple recommendations were included in these reports. The following four were approved by the general conference: (1) Fluoridation of the Detroit Water Supply; (2) Establishment of in-service training programs for improving teacher education in health fields; (3) Development of additional school health councils; (4) Further recruitment of nurses and recognition of the need for salary increases commensurate with nursing services. The last recommendation was forwarded to the Departments of Health.

The conference was financed through a registration fee charged to the participants and by contributions from the Detroit Pediatric Society and the Wayne County Medical Society. The event was directed by a representative steering committee.

Louis E. Heideman, M.D., chairman of the steering committee, reports that "these conferences seem to increase in value year by year in that they have served to emphasize the interest of the physician in community problems and that he has a positive contribution to make beyond that of providing physical examinations.

"It has also served as a most useful forum for an exchange of ideas between the various disciplines involved and for the fostering of better relationships between these groups.

"The conference has no authority to implement action, but the thinking has been carried back to the agencies which do have such power and has served to improve school health programs."

Kent Backs Fitness Project

For the past two years, the Junior Chamber of Commerce has sponsored a "Youth Fitness Field Day" at Grand Rapids, with the cooperation of the Board of Education and the Kent County Medical Society.

The Kent County Medical Society schedules its members who volunteer to be present at the event, one to two hours each, throughout the day. These doctors screen, inspect and examine all participants prior to their entering the competition. Too, one or more doctors are on hand in the event of injury, etc.

The applications include consent of parents to participate at own risk. The program includes participants nine through 16 years of age—a day long program from 9 a.m. to 5 p.m. Approximately 500 take part.

Calhoun County Sponsors Clinic Day

Convening at the Battle Creek Country Club for a full day of medical education, Calhoun County Medical Society members played host to physicians from the surrounding area for their third Annual Clinic Day Program.

Sponsored by the Postgraduate Medical Education Committee of the MSMS, teachers from the University of Michigan Medical School and Wayne State University College of Medicine presented a balanced program of current medical and surgical topics. Individual papers were presented by Drs. Robert W. Bailey, Herbert E. Sloan and Walter P. Work, of the University of Michigan faculty; and by Drs. Benjamin Barenholz, Clifford D. Benson, John S. Meyer and Raymond Read, representing Wayne State University.

In addition to these discussions, Norman O. Amos, M.D., of Battle Creek, moderated a panel on the "Multiple Injury Patient" with Doctors Bailey, Benson, Read and Sloan as participants. Several multiple injuries cases from the local area were presented and their treatment discussed by the panel with audience participation.

Following dinner, Roger W. Heyns, Vice President for Academic Affairs of the University of Michigan, discussed changes in higher education on university campuses, noting a serious and earnest awareness of world affairs on the part of the typical university student today, and a greater orientation toward grades as the symbols of academic success.

In addition to the medical practitioners, internes and hospital residents in attendance, a group of 24 graduate nurses from the local hospitals spent most of the day at the meeting.

The Auxiliary to the Calhoun County Medical Society contributed to the success of the meeting in many ways as their members, in alternate shifts, spent the entire day carrying out the registrations and many other mechanical and social tasks efficiently.

"Prescribe" Seat Belts in California

California doctors are alerting the public to the fact that seat belts are their best form of protection against disabling injuries and death from auto accidents by means of a clever seat belt prescription form developed by California Medical Association's committee on traffic safety.

The 4x5-inch prescriptions, titled "Rx Your Prescription for Safety," are available to physicians in pad form for easy distribution to patients or for insertion in patients' financial statements. Dosage prescribed on each blank is "one seat belt for each member of family; to be used whenever the automobile is occupied." There is space at the bottom of the form for printing the name of the county society that distributes the prescription pads and for the individual doctor's signature.

"Psychologically we think the forms will have the effect of getting seat belts into the doctors' cars as well as being an effective means of informing the public of the value of seat belts," says California Committee Coordinator Jack Collins.

Leaflet Describes Wisconsin Medical Museum

In an effort to create a broad base of public interest and support for Wisconsin's newly established Museum of Medical Progress at Prairie du Chien, the State Medical Society of Wisconsin has developed another in a series of informational leaflets highlighting some of the fascinating history behind the exhibits currently on display at the museum.

Titled "Museum of Medical Progress," the latest promotional piece gives a panoramic account of some of the major milestones of medical progress from the days of Indian medicine men to present-day space-age medicine. The new brochure is being widely distributed in Wisconsin as well as to selected groups throughout the Midwest.

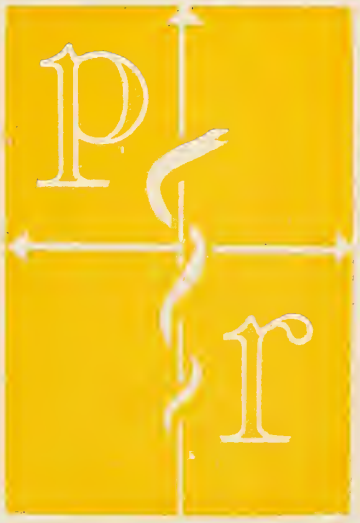
Now in its second year of operation, the museum drew an estimated crowd of 20,000 tourists this summer—positive proof that its publicity program is paying off handsomely. The museum was established in 1960 by the state society's Charitable, Educational and Scientific Foundation in cooperation with the State Historical Society of Wisconsin.

The Wisconsin Museum has considerable material about William Beaumont, M.D., because he conducted some of his experiments there.

Undivided and Unconquered

By Howard A. Nelson, M.D., Greenwood, Mississippi
(Former President, Mississippi State Medical Association)

(Excerpts from a speech given at the recent convention of the Mississippi Association of Hospital Governing Boards)



The medical profession and the hospital industry are enduring a critical experience. They have become the foci of a controversy which they neither begged nor deserve.

We and the sick whom we serve are unwitting victims of a political power struggle and likely candidates for martyrdom in a cause already won.

Physicians and hospitals are being cleverly challenged as big labor, big government, welfarism, and the liberal lunatic fringe are realizing success in posing a basic issue and a basic question. Both are serious and demanding. Moreover, our opposition has been successful in securing public validation of the question, if not in fact the issue.

Simply stated, the question is this: "Under what circumstances shall medical care be provided in the United States of America?"

The issue is far more insidious: "What sort of economic system shall the United States have?"

If socialized medicine ever becomes a totally accomplished fact in this nation of ours, one of the circumstances making it so will be a cleavage and a division between physicians and hospitals. And our common enemy has enjoyed some successes in this direction.

There will always be a King-Anderson Bill or a Forand Bill pending before the Congress. No matter what is enacted or adopted or decreed by executive order, it will never be enough for the proponents. We should recognize and understand that it's no longer a question of how the bill shall be paid, it's only a question of who will do the paying. This is the basic difference, the essential division, and the final choice between federalism and voluntarism.

The King-Anderson Bill proclaims erroneously that it offers only hospital benefits to those who would receive its largess. Its vociferous supporters cry out that there is no reason for physicians to be concerned at all.

Each of us has a substantial task to perform. In our respective national organizations, we must make our voices heard and heard effectively. There must be an extension of associations of hospital governing boards where the business, professional, and industrial

leadership of the thousands of American hospital communities can bring to bear the full weight of its persuasive influence.

Within our respective communities, there must be new and imaginative rapport among hospital trustees, hospital management, and physicians. At state and national levels, we must discover new and useful relationships between medical and hospital associations.

Each of us must strive in mutual concert to persuade men of understanding and breadth of intelligence to seek and obtain public office in the legislative and executive branches of government.

On occasion, we must subordinate our own personal desires to realize the greater goal of mutual service to the sick and injured. These are not easy tasks and the road to our ultimate goal is strewn with anything but rose petals.

We can and will travel it in a climage of mutual confidence because we both have the same destination.

"Continue Volunteer Work, But Know Legislators, Too"

"It is generally conceded that the quality of care, the excellence of care, its individuality and availability as developed in the United States is unexcelled anywhere in the world. Nowhere do people enjoy the selective competence we offer. Yet the proximity of industry to government places this independent system in jeopardy.

"It has taken a long time for our adversaries to reach this plateau. We are being nibbled to death by social welfare planners and the next bite may be only two weeks away. The present administration is making every effort to push the King-Anderson bill through this legislative session.

"I plead with you to protect yourself—and your patients. Cultivate your legislative representative, make him an informed representative, enlist his aid in blocking forces which would legislate the free practice of medicine from off our medical horizon. This is an important part of our future.

"Has medicine ever shirked its responsibility to help the ill and injured? We spend countless hours in charity clinics, we render courtesy discounts, we run mass tuberculosis testing programs, we do school examinations and immunizations.

"Our volunteered service is born of a sense of responsibility and dedication. We must never allow these services to be halfheartedly rendered through conscription. Ours is a duty of education. Yes, through headlines, through precinct work, through education. Highly efficient teamwork is required."—Excerpts from address by Floyd C. Bratt, M.D., President, American Academy of General Practice, at the 1962 Annual Assembly.

Pennsylvania Medical Society Has Liaison with Labor

(The following are excerpts of an address by John Rineman, Assistant Director, Pennsylvania Medical Society, before AMA Institute in Chicago for county and state society officials)

"For many years it appeared that medicine and labor were poles apart on almost every issue. Because of State Society leadership in Pennsylvania, we have found that this is not quite true.

"Several years ago, the Pennsylvania Medical Society and the Pennsylvania AFL-CIO joined in bringing together physicians and labor leaders in a statewide conference to discuss mutual problems. A third such conference is planned in November. As a result of the first conference, a joint Labor-Medicine Liaison Committee has been formed. This Committee meets approximately four times a year.

"Because of this activity, Labor-Medicine Liaison Committees are coming into being at sub-county level, and as a result the strained relationships between labor and medicine which once seemed quite apparent in Pennsylvania have been eased."

Stresses Human Factors

"If you would serve your hospitals in the most effective manner, you must bring to your task dedication and education—love and knowledge."

These words were spoken by Mrs. Harry Milton, chairman of the AHA Council on Hospital Auxiliaries, on the opening day of Annual Meeting. Mrs. Milton further urged that Auxiliary leaders conscientiously carry out educational programs for their entire memberships. "Educate yourselves by every means possible," she said, "so that you may pursue your goal with intelligence, judgment and understanding."

From Our Public Relations Library

The following books are recommended to interested doctors as stimulating and informative. Send a note to MSMS Public Relations Department and we will send them for your perusal by return mail:

"Persuasion" by Herbert I. Abelson

"Public Relations Ideas in Action" by Allen H. Center

"Television and Radio" by Giraud Chester and Garnet R. Garrison

Kalamazoo Survey Finds Attitudes Good Toward Doctors, Hospitals



The Public Service Research survey of medical care in Kalamazoo revealed many opinions, including:

—60 per cent of the respondents believe that the care provided by the doctors is "reasonably priced" and another 20 per cent believe it is "a good buy."

—72 per cent believe that physicians' incomes are "about what they should be" when the length of an MD's training and the hours he works are considered.

—90 per cent believe that the care given in the city's two hospitals is either "average" or "above average."

Many, many statistics can be pulled from the recently-released survey and interpreted. The Kalamazoo Academy of Medicine, involved in the study for the past year, has several committees currently studying the results and gearing up Academy projects on the basis of the findings.

The survey, financed by a grant from the Kalamazoo Foundation and endorsed by the Kalamazoo Academy of Medicine, was aimed at identifying attitudes and opinions of MDs and lay people toward aspects of medical care, to trace changes in care in Kalamazoo over the last 20 years, and to compare attitudes and beliefs with facts.

Other attitudes held by the public toward physicians:

- 59 per cent of the general public believe that the average family physician earns $20,000 or more a year from his practice.
- Of the respondents, 56.6 per cent think doctors work eight to 12 hours a day and 23.1 per cent believe the MD's working day is from 12 to 16 hours.
- Most patients approve of their physicians' "bedside manner," with 74.8 per cent of the general public respondents describing it as either "warm and friendly" or "friendly." Among the hospital patients answering the questions, 85.1 per cent described their doctors in the same way.

Kalamazoo residents, the general population showed, believe people live longer today than 25 years ago because of better care by doctors (26.1 per cent of respondents stated this).

The survey found that 87.3 per cent of the general population have a family physician. Of that group, 64 per cent have had the same MD for five years or longer.

Physicians of 60.4 per cent of the people interviewed were credited with giving "complete and understandable" explanations concerning illnesses. Only 8.7 per cent complained that their doctors gave "very little" explanation.

Concerning fees, respondents were asked what fees they believed physicians should charge for a regular office call, a one-hour examination, delivery of a baby, and for removal of appendix. In some

instances, the survey reported, fees actually charged by doctors for the services listed were lower than the fees which respondents felt should be charged.

When asked if they believed hospital care is a good buy, 43.5 per cent said it was overpriced. By contrast, only 15 per cent of the hospitalized patients thought it was overpriced.

Hospital care was termed "a good buy" by 50 per cent of the nurses interviewed and nearly 80 per cent thought hospital emergency services are generally good.

The survey among registered nurses showed that 52 per cent believe physician care is reasonably priced and 63.9 per cent believe that doctors give exactly the amount of care required.

The Public Service Research firm of Stamford, Conn., scientifically selected a sample for the survey of 230 heads of households, 50 registered nurses in the city's two hospitals and 50 convalescent patients in the hospitals.

U-M Study of Aged Interpreted by AMA

"Analysis of the new University of Michigan survey demonstrates again as other studies have that the aged as a group are substantially better off on the average than younger Americans."

The statement was made by George M. Fister, M.D., president of the American Medical Association, in an evaluation of the Michigan survey.

Doctor Fister said that the new survey of the economic condition of American families, made by the U-M Survey Research Center, "proves again the injustice of forcing higher payroll taxes on the nation's workers to buy health care for the aged." "It proves that the proposed program of nationalized health care for the elderly would be an intolerably unfair burden on wage earners by forcing them to pay health-care bills for the aged, the vast majority of whom are well able to take care of themselves."

"The truth is a great deal different. As shown by the findings of the University of Michigan survey, aged families, far from destitute and impoverished, actually own considerably more assets and owe fewer debts than younger families."

The AMA president said that while some elderly citizens need help in paying for medical care, the Michigan survey shows that "deprivation and want are not a universal condition of the aged."

Dr. Fister said that "the most striking and most significant disclosure is the fact that 96 per cent of the aged interviewed did not owe a single penny to a hospital, a physician or a dentist."

"Furthermore," he said, "the evidence is overwhelming that paying for medical care is not a pressing problem for the vast majority of Americans, since 90 per cent of families under 65 had no debts to physicians, dentists or hospitals, and only 1 per cent of all families, including those over 65, owed $500 or more to these providers of medical services.

Dr. Fister said the survey shows:

1. The median value of total assets owned by families with the head of the family over age 65 was $8,349 in 1960, almost twice as much as the $4,839 which was the median value of total assets of all other age groups as determined by the study. (The term family is substituted for "spending unit," the basis of the study, for greater clarity.)

2. The median value of equity in a home for the over-65 families was $4,559, almost 4½ times as much as the $1,028 reported for younger families.

3. The median value of liquid assets was almost 2½ times as great for the over-65 families—$1,012 compared with $460.

4. Sixty-four per cent of the aged families are home owners, and 53 per cent of these own their homes free of mortgage. In contrast, 53 per cent of younger families are home owners and only 18 per cent have no mortgage indebtedness.

5. Sixty-three per cent of over-65 families own assets valued at $5,000 or more compared with 47 per cent of younger families. And 41 per cent of the aged hold assets valued at $10,000 or more, compared with 27 per cent of younger groups, while 18 per cent have assets of $25,000 or more, contrasted with only 9 per cent of younger families.

6. Among aged families, 74 per cent had no personal debt, compared with 34 per cent of younger families, and 86 per cent reported no installment debt, compared with 48 per cent of all other age groups.

Per Capita Personal Income (1961)

Data released this month by the U. S. Department of Commerce discloses that Michigan's annual per capita income decreased $43 from 1960 to 1961 dropping from $2,313 in 1960 to $2,270 in 1961. (The national average for 1961 was $2,263 per capita.) While the 1961 figure places Michigan in 17th place among the 50 states, it was not the only state to show a per capita income loss; seven other states also registered a drop. These states and the income loss were: Maine ($26), Ohio ($1), North Dakota ($128), Florida ($1), Montana ($46), Wyoming ($23), and Alaska ($76). The lowest per capita income for 1961 was in Mississippi ($1,229) with Delaware's highest amount of $3,013 being nearly 2½ times greater. On the basis of total personal income per state for calendar 1961, Michigan with $18.1 billion ranked in seventh place behind New York ($48.5 billion), California

($45.6 billion), Illinois ($27.4 billion), Pennsylvania ($26 billion), Ohio ($23 billion), and Texas ($19.5 billion).

The Doctor Discusses Dollars

(This message in brochure form is published by The Academy of Medicine of Cincinnati for wide distribution to patients and all others.)

I'm the Family Doctor in your community. I deliver your babies, take care of your children's chickenpox, attend the coronaries and ulcers and grandpa's stroke. I was born and raised here, like most of you. Some of you have been my neighbors for many years; some of you were my classmates from elementary or high school; some of us are lodge brothers; some of us go to church together; and some of you are my patients. So, I sincerely feel that I can call each of you my friend.

Most everyone knows all about your economic condition because your salaries, take-home pay, fringe benefits, et cetera, is generally known. But there seems to be some question about my financial position, and I believe you are entitled to this information. It should be explained because there are many patients who think that the payment for medical services goes into the doctor's pocket without realizing that the doctor's overhead runs from $2.50 to $3.00 per hour on his average work-week.

I work an average of 60 hours a week. The daylight hours are fairly regular but the night work from 11 p.m. to 7 a.m. is quite irregular; sometimes it's midnight to 3 a.m., or 2 to 4 o'clock, or on some occasions, all night. I'm on call of course 24 hours a day, and if I leave town to attend a medical meeting or take a vacation, I must arrange for another physician to take my calls.

My "take-home" pay averages $5.00 an hour, out of this I must try to provide some sort of retirement insurance plan.

Some of my colleagues who have spent extra years of special training in specialties like general surgery, brain surgery, or heart specialists, do somewhat better. Their "take-home" pay is about $6.00 per hour.

How do we arrive at these "take-home" pay amounts?

The average annual professional expenses of a doctor are $10,600. (Rent, salaries, supplies, operation of automobile, et cetera.)

To this must be added the amortization of his cost of becoming a doctor. After completing his premedical education in a college of liberal arts, a doctor has an additional period of four years in a medical college which is required before he can apply for a state license, and at least one year is spent to complete an internship. The cost to obtain a medical education, which is advanced out of the doctor's pocket, is $13,600 and the loss of income during his training period is $18,800, which makes a total of $32,400. He starts to earn at the average age of 28 and continues to the age of 60, giving him 32 years of earning power. His amortization per year, therefore, is $1,000.

The average gross income of the general practitioner is $26,000. Deducting his expenses ($10,600) and amortization ($1,000), his net income is $15,000. For a 60-hour week at $300 per week, his hourly net earnings are $5.00. The average gross income of the specialist is $31,800. When we deduct his expenses ($10,600) and amortization ($3,170), we find his net income is $18,030. This breaks down to $360 per week or $6.00 per hour. No computation is made for overtime, Sundays, holidays, and night rates to establish the average hourly pay.

In addition, doctors devote at least 10 per cent of their working hours to direct charity services. They devote at least 10 per cent more to noncharity patients who will never pay their bills. So, only about 80 per cent of the doctor's time is actually paid for. The dollar value of the 20 per cent given away in the United States amounts to about a billion dollars annually.

I think you and I have had similar backgrounds, and I'm sure our objectives are the same. We doctors want only an equitable compensation for services rendered.

Our primary concern is providing the highest caliber medical service for the people of our nation through private enterprise rather than bureaucratic subsidy. Better understanding of our respective and mutual problems is our objective. We want to maintain our American heritage of a free, democratic community. DON'T YOU?

Much Free Time Given to Clinics

How much free time do doctors give to patient care? A report from Los Angeles' Cedars of Lebanon-Mount Sinai Hospitals shows that 420 doctors worked more than 36,000 hours in the hospitals' clinics last year at no pay. Their total time was valued at $550,000.

Insurance Coverage Grows

An estimated 55 per cent of the total non-institutionalized aged population are protected now with health insurance. This adds up to more than nine million persons 65 and over who have health insurance, including some 4.75 million elderly covered by insurance companies.

More than 200 insurance companies are actively

issuing health insurance policies to the aged, and several of these companies also offer paid-up-at-65 policies. Seven of every ten workers covered under group health insurance policies issued by insurance companies during 1961 have the right to retain their coverage when they retire.

Kefauver Gets Letters

K. S. Williams, a midwestern businessman, recently sent a letter to Senator Kefauver, which said in part: "On October 29, 1961, my wife was taken seriously ill . . . a gangrenous blocked intestine. I don't know whether the $82 worth of drugs she received costs 82 cents or $8,200 to produce, and I couldn't care less. The profits which the drug companies made financed the necessary research to develop drugs and equipment which saved my wife's life. I am getting very fed up with the attitude you and many people in Washington are taking—that profits are criminal, sinful, and should be eliminated. The profit motive is behind newer, cheaper, and better ways of doing things. I hope that neither you nor I have our life span cut short by the lack of a drug which was not developed." —From *The New Physician*, October, 1962.

Explains New Tax Regulations

The installation by the Internal Revenue Service of an automatic data processing system which uses modern high-speed electronic equipment necessitates the use of numbers in addition to names to identify taxpayers in electronic and other records. In order to give effect to this new system, Congress enacted legislation last year providing for taxpayer-identifying numbers on Federal tax returns and related documents, effective for the tax year 1962 and thereafter. And, in this connection, Congress authorized the Commissioner of Internal Revenue to prescribe regulations requiring taxpayers and payers of income to obtain and use identifying numbers. Such regulations have recently been adopted.

Sees Need for More Management Training

Bernard Appel, M.D., a teacher of medicine at Tuft University for almost 40 years, contends the nation is graduating physicians who are unprepared for the problems of practice management.

"The medical schools of America are the best in the world," declared Doctor Appel. "But the rapidly increasing volume of medical science fills our curricula to overflowing and leaves no room for instruction in the complex problems the young physician must face in order to make a living and build an estate so that he can properly provide for his family."

Doctor Appel continued: "We must recognize that the physician has social and economic as well as scientific responsibilities and he should have access to instruction how to handle them all."

"The American physician," concluded Doctor Appel, "is face to face with the problems of renting space, hiring and training employees, buying supplies, handling bad debts and paying taxes. We must recognize that these are problems to which experts are making significant contributions."

3,100 Loans Given Students by AMA

More than 3,100 medical students, interns and residents are beginning the 1962-63 academic year with loans from the American Medical Association Education and Research Foundation's loan guarantee program. Applications still are arriving at the rate of about 150 a week.

An analysis of the loans shows that about 98 per cent of the recipients are male and 73 per cent are married. The median loan amount is $1,125 per medical student and $1,315 for interns and residents.

Offer Mutual Fund Plan For New England M.D.'s

The Council of the New England State Medical Societies has offered a mutual fund plan for interested member doctors.

Physicians there may make purchases in any amount in multiples of $25.00. No single purchaser may invest more than $25,000 in any one year.

The Securities and Exchange Commission has approved the plan. An independent incorporation will direct the investment program.

M.D.'s Get 25 Cents

Physicians got 25 cents of each medical care dollar in 1961, U. S. Department of Commerce reports. . . . Rest was divided as follows: hospitals, 27.1; drugs, 19.4; dentists, 10; health insurance, 7.9; appliances, 6; other, 4.5. . . . Total spent, $20.8 billion.

MSMS Clinic Days Effectively Serve Doctors Across the State

The development of the Michigan State Medical Society postgraduate "Clinic Days" has been exciting and a definite example of an alert Medical Society constantly seeking ways to better serve its members and the public.

"And we are quick to point out," explains C. I. Owen, M.D., MSMS President, "that the ambitious program would not be possible without the excellent cooperation of the University of Michigan, Wayne State University and the Michigan Department of Health."

The MSMS activities are directed by the Postgraduate Medical Education Committee, chaired now by John M. Sheldon, M.D., Ann Arbor.

The historic development should be recalled for all MSMS members:

In 1922, the Michigan State Medical Society inaugurated postgraduate conferences consisting of one or two days of teaching once or twice a year in the then 16 councilor districts of the state. Although this program had good attendance and sustained interest, it became apparent that there was a growing need for a type of instruction that included a greater continuity and more academic direction.

* * *

IN 1926, representatives of the University of Michigan Medical School and of the Detroit College of Medicine and Surgery (now Wayne State University College of Medicine) were invited to meet with The Council of the State Medical Society to consider ways and means of providing for the increasing needs for postgraduate education in Michigan. A committee, representing the two medical schools and the state medical society, was appointed to study the problem. In their report the following year, the committee stated that postgraduate education under academic direction was clearly called for and that the University of Michigan as a state tax-supported institution engaged in undergraduate medical education had a particular obligation to undertake such a program, which, after all, was but a continuance of its undergraduate teaching designed to supply competent medical service to the people of the state.

The chief recommendations of the committee were as follows:

1. Postgraduate teaching should not be confined to the University of Michigan Medical School and Hospital, but should be established in many centers throughout the state.

2. In administering the program, the University should seek and maintain the closest cooperation with those extramural centers, with a view toward developing and utilizing existing facilities to the fullest extent.

3. Physicians interested in medical education and qualified to teach



should be invited to become extramural members of the faculty.

* * *

IN 1927, the U-M Board of Regents approved the establishment within the medical school of a department of postgraduate medicine, which operated under the usual conditions governing a department of a medical school. At the annual meeting of the State Medical Society in 1928 The Council approved two committees:

(1) the Advisory Committee on Postgraduate Education, representing the University of Michigan Medical School, the medical profession, and the State Department of Health, and

(2) a special committee in the city of Detroit (Wayne County Medical Society), where immediate developments were contemplated, to advise on local arrangements.

The program has been developed in accordance with these early recommendations; namely, that postgraduate medical education be carried on under academic direction, that responsibility for it be centered in the undergraduate medical school, and that it be coordinated but sufficiently decentralized to be within reach of every practitioner of the state.

* * *

THE PRESENT MSMS extramural program is a combined project of the Michigan State Medical Society, the Michigan Department of Health, Wayne State University College of Medicine, and the University of Michigan Medical School. Programs are arranged by the department of postgraduate medicine at the University of Michigan, utilizing the faculty members of the two medical schools. Nineteen centers served by this program are located mainly in the rural areas of the state. Teams of two to three faculty members present lectures on prearranged subjects in each center. Where facilities permit and audiences desire, clinical conferences are held. These programs provide a brief postgraduate education experience twice yearly for approximately 800 physicians.

The first chairman of the MSMS Postgraduate Medical Education Committee was the late J. D. Bruce, M.D., Ann Arbor. Doctor Bruce was a pioneer in this field and held the honor of having organized the first postgraduate education department in the nation at the University of Michigan.

The second chairman was Howard H. Cummings, M.D., Ann Arbor, a past president of the Michigan State Medical Society. While chairman, his committee conducted an important survey of MSMS members and found that 90 per cent were participating in one or more of the postgraduate activities offered in Michigan by MSMS or the medical schools.

Doctor John M. Sheldon was appointed chairman seven years ago and continues to direct the work, aided by an able committee of distinguished Michigan doctors of medicine. The MSMS Committee meets regularly to review the clinic day courses after their completion and to plan future programs.

* * *

EARLY IN THE SERIES, it was decided that several clinic days should be held in Detroit to meet the needs there for expanded postgraduate work. That event grew in 1947 into the Michigan Clinical Institute, now held each spring in Detroit. Often it is pointed out that MSMS is the only state medical organization that holds two large scientific education programs (The Annual Session and the Michigan Clinical Institute) every year.

The Committee members suggest the general topics; then a local committee helps to select the topics and speakers. Care is taken so the subject matter and the speakers do not compete with programs scheduled by county medical societies, but rather that the clinic days complement the local educational efforts. Often the MSMS Councilor serves as chairman for the clinic day programs in his area, or he may designate a chairman. In some areas, members of the MSMS postgraduate committee serve as chairmen.

The actual clinic day programs stress diagnosis and treatment and also provide information about recent advances. When possible, local patients are used in the clinic programs, with discussion by both the local doctors and the guest speakers.

The Michigan Department of Health actively supports the programs, especially in the areas of maternal and child health.

* * *

THE SERIES OF 1962-63 clinic days will again include Cass City, which was added in the spring of 1962, also Niles and Petoskey which were started two years ago. New communities are added from time to time. For example, MSMS clinic days formerly were held at Grand Rapids, Flint and Saginaw but were discontinued as extensive local, educational programs developed in those cities.

Growth in the program has been steady and consistent. In 1960-61, the programs drew an aggregate of 772; while the 1961-62 series drew a total of 916.

The 1962 fall series included extramural courses at Alpena, Battle Creek, Grayling, Lansing, Muskegon, Niles, Petoskey, Traverse City, and seven in the Upper Peninsula—Escanaba, Houghton, Iron Mountain, Ironwood, Marquette, Menominee, and Sault Ste. Marie.

Hypnosis—Today and Tomorrow

Ralph V. August, M.D.
Muskegon Heights, Michigan

WHAT is hypnosis? How can it be employed? Why does it work, what does the future hold, and how have I used it? These are the intriguing questions I shall present. I have very few answers. Some have been hypothesized. Some may never be determined.

The term "hypnosis" is a bit difficult to define. It may be a state of hypersuggestibility. It may represent a transaction between subject and hypnotist. It may be described as a state of passive acquiescence to reasonable suggestions with an unusual facility for performance. What transpires in the hypnotic trance is much easier to describe than what the trance is.

How to hypnotize is simple to teach and readily learned by anyone of average intelligence. Any doctor (and I always use "doctor" in the generic sense) can learn to hypnotize in a few minutes. Besides, there are enough gadgets on the market, crystal balls, hypnodiscs, and electric machines, to name only a few, that even the faint hearted need have no fear.

Of course, many paths lead to hypnosis. The approach may be authoritarian, permissive, or cooperative. The patient's presenting behaviour may be utilized. The physician may suggest a pattern of behaviour. The course taken for induction has apparently no effect on the trance state obtained.

I shall not, at this time, dwell on the hundred and one methodologies employed for trance induction. You know as many, possibly more than do I. Besides, each one of us develops our own pattern of behaviour, and with it our own favorite and/or most effective methods for trance induction. Permit me, instead, to pass to an uncharted area. Why does a patient enter the hypnotic trance? Does it result from dissociation, an erotic striving for dependency, atavistic regression, goal directed behaviorism, conditioned responsiveness, or is it simply an exaggerated manifestation of hypersuggestibility? May the reason vary with different patients and in varying situations? I don't know. I do believe that hypnosis is not a pathologic state, but, rather, a continuum of the norm.

Those of us conversant with the history of hypnosis are well aware of its cyclic popularity during the last 200 years. Will it continue? I believe that this body of knowledge should be integrated into the formal curriculum for the teaching of doctors. I believe that presentation at the university academic level will not only raise the social status of hypnosis but will also make available special benefits to the needy. This will, gradually but most certainly, permit removing so powerful a therapeutic modality from the hands of the unfit.

Now that we have dwelled on the unfamiliar and unrevealed, it is high time for relating personal experiences, those which have taught me how little I really know about hypnosis.

I have employed it as an investigative aid, also as an ataractic, analgesic, and anesthetic.

To obtain good hypnosis almost requires a disease. Enthusiasm, zeal and conviction are infectious. They are contagious, from physician to patient. The disinterested, "uninvolved" physician working only for a fee will find too many obstructions on the road to consistently satisfactory trance utilization. The patient will be more intensely affected by how her physician feels rather than by what he says or does. I believe that his zeal is far more important to trance induction than are his skill and experience. The benefits obtainable, however, depend on his understanding, experience, and skill.

I would like to mention eleven areas in which hypnosis may be employed.

1. It may provide a short cut to *psychiatric therapy*. The improved rapport and increased freedom from inhibitions which characterize the trance state should speed the notoriously protracted process of psychotherapy. Hypnotic age regression can be an additional aid to abbreviating the time and so decreasing the patient's financial burden. My colleagues in psychology and psychiatry can best inform you on the practicality of these assumptions.

2. *Infertility* always involves two people and usually is caused by a number of interacting variances from the norm. These may be functional, organic, or both. Emotional problems may be responsible. They are almost always a resultant. Therapy must initially consist of a thorough investigation. As a gynecologist, I believe that all organic problems must first be discovered and corrected when possible. Only secondly, is investigation and therapy of functional factors indicated. When such is needed, hypnosis is a valuable adjunct. It is a rapid method for learning psychologic

Presented at a meeting of the Louisville Society of Psychosomatic Medicine, Louisville, Kentucky, September 27, 1961.

background, for removing problems that may interfere with consummation of coitus by the male and cooperation by the female, and for reducing female tensions and tubal spasm. Hypnotherapy may also aid in the production of regular ovulatory cycles and in more nearly normal vaginal pH production, although we do now have some excellent hormonal preparations which will produce similarly good results with far less physician effort.

3. I have never been called upon to treat *libidinous malfunction* but what the etiology was functional. Prepubertal castration and rare organic diseases can impair or eliminate the libido. Maybe these people rarely seek treatment because they know not what they miss. Decreasing or total lack of coital urge culminating with failure to achieve a climax is all too frequently encountered in married couples, usually in the female, particularly after having borne one or more children. What to do?

Such a couple is unhappy. This problem, if unsolved, may break up the home.

Because I sincerely believe that the etiology lies between the ears rather than between the thighs, I employ hypnotherapy. This is preceded by a satisfactory consultation and complete physical exam. The hypnotic trance is then induced for more intensive investigation. This is followed by retraining with the permissive approach. If necessary, authoritarianism with guidance is also employed. Results have been excellent.

Case Report

C. H. was a 21-year-old laboratory technician. Her husband was of the same age. Her only pregnancy had terminated favorably with a child now 14 months old. There had been no coitus for eight weeks following her delivery. She had been blessed with an apparently normal libido prior to her delivery, but was now cursed with frigidity. No contraceptives had ever been used. Physical examination revealed an attractive, healthy, young, adult, white woman of average weight and height. She had a partially relaxed entroitus, a vagina of better than average size, and absence of any sensitive areas. There was good tone in the levator ani and constrictor vaginae muscles.

She readily and avidly accepted the hypnotic trance despite this being her initial experience, because she had been referred for hypnotherapy. Misinformation and misunderstanding were discovered to be her problems. She was advised of the normalcy and propriety of marital sexual relationships attuned to her husband's desires. Anatomic and physiologic details about her genitals were explained. Sensations obtainable were pictured verbally. An authoritarian manner was employed to suggest that she enjoy intercourse.

She was seen again one week later. Intercourse with pleasure had been enjoyed five times in the previous seven days. She had culminated with a climax each time.

4. Therapy of *dysmenorrhea*, in like manner, should be initiated with a complete physical examination. Similarly also, the etiology is usually discovered to be functional. Physician explanation followed by patient understanding and acceptance should suffice for therapy. It usually fails. The likelihood of success is multiplied manyfold, however, when this is done at the hypnotic level. Etiologically significant history, buried deeply by the years and long forgotten, may be unearthed with the use of hypnotic age regression. Considerable relief, and usually a cure, will follow.

Such was the history of D. W., a pretty 18-year-old white college student. She worked in a supermarket on weekends. Dysmenorrhea began shortly after the menarche at age twelve. It had continued with such severity that neither work, nor study, nor even play had been possible for two days out of every twenty-eight. She had been able only to take analgesics and to remain in bed.

Her history obtained at the hypnotic level was much more revealing. She became 12 years old on February 12, 1953. Two days later, she was guest of honor at a birthday party. The menarche appeared. This together with the irritation attendant on wearing a perineal pad for the first time, was doubly embarrassing because none of the other little girls had as yet begun to menstruate. Her mother said it was just "her sick time." So she feigned a headache and went to bed. This procedure continued each month, at first with varying intensity of headache, subsequently with increasing severity and multiplicity of noxious symptoms.

Wonderingly, I asked why her twelfth birthday party had been postponed two days. She thought for a minute then answered that her birthday (that year) fell on a Thursday. The children of her age group were free of school attendance on Saturday, two days later. After our visit had terminated, and the patient left, I called our local newspaper office to verify that February 12, 1953, fell on a Thursday. It did. Yet the patient was unable to verify this or any other such birthday in a similar manner at the waking level.

Suffice it to say that discovering the origin of her initial complaints and understanding the effects of habit formation permitted marked improvement and negated the necessity for inconvenient confinements to bed.

5. Hypnotherapy has been quite widely employed as an aid to *weight reduction*. It could just as easily aid the person desirous of gaining weight, but our decadent democracy spawns such an unfavorable climate for living that only the former, obesity, has become a widespread problem. I hesitate to treat a nickel disease with a five dollar remedy but I have been forced to do so by 5 feet tall, 260-pound alluring women.

Again, as with previously mentioned problems, a complete physical examination must precede therapy. A basal metabolic rate determination with or without a protein-bound iodine determination is also done. The majority of all the obesity problems encountered

in my office have been etiologically self induced. These people eat too much!

What do I do? The same as with my libido and dysmenorrhea problems, plus dietary restriction, judicious use of thyroid, anorectics, tranquilizers and sedatives. I also insist on frequent visits, every two weeks, and individual hypnotherapy, although some of my hypnotist friends have apparently been quite successful with group therapy. Results have been equivocal.

6. Other noxious habits such as *smoking, alcoholism, stammering, bruxism, gagging,* and *narcotic addiction* may also be treated with the aid of suggestion at the hypnotic level. I have personally treated only the first, rarely, and with very little personal motivation. It may be that I smoke too many cigars myself, and that misery does love company. My personal lack of enthusiasm for treating so common a problem as smoking with so immensely powerful an agent as hypnosis may account for nonuniformity of results. I believe that only institutionalized patients should be treated with hypnosis for alcoholism and narcotic addiction. Therapy of stammering is best left to the speech correctionist. Bruxism and gagging respond well to hypnotherapy, so my dental colleagues say. My ministrations are confined to the other anatomical end.

7. Postoperative *urinary retention* in the absence of organic disease of the urinary tract is almost invariably functional. It responds well to hypnotherapy. Psychotherapy is too time-consuming and too prolonged for prompt satisfactory management.

Case Report

B. W., a 37-year-old white woman, had a laminectomy and spinal fusion for degenerative disc disease at the lower lumbar and first sacral segments. She had as yet failed to void spontaneously 23 days postoperatively. The urologic consultant noted no evidence of organic disease which might account for retention. Yet, she had already developed a severe ascending staphylococcus infection. The seriousness of systemic manifestations prompted her physician to request that I cure her—with hypnosis—immediately.

The nurse introduced me to this young lady, encased in a heavy body cast, feverish, and looking forward to seeing me, as she lay in her bed, one of four in the room. She had been expecting me to hypnotize her, so the procedure was carried out with dispatch. At the hypnotic level, she discussed her problem readily. She was employing her inability to void as a means of obtaining attention and of punishing her husband for his real or fancied lack of consideration for her. Prior to marriage, she had been a beauty contest winner. Since, she had become just another housewife.

With some few preliminary bits of philosophy, I introduced authoritarian suggestions that she would be unable to repress strong urges to void, and would culminate by doing so by 3 p.m. I had a full schedule for the day plus an out-of-town speaking engagement that evening. Hypnotherapy was terminated with the statement that only she, the nurse, and I would know of her "3 o'clock secret."

I telephoned the hospital from my office at 3 o'clock. The patient had not voided! Following my request, a telephone was provided the patient for conversing with me. She was rehypnotized over the phone, using a key letter established at her first visit. In the trance, the reason for failure of spontaneous urination poured forth. Despite precautions to the contrary, the other three patients in her room were not only aware of "our 3 o'clock secret" but were talkatively anticipating the event. So, she refused to void.

I agreed with her justifiable reason and told her we would fool them all. I returned to the hospital, had the patient moved to a private room, and placed on a bed pan. Encased in a heavy body cast she would have been too heavy for me to move. She required a longer time to enter a deep trance, probably as a result of her previous success in failing to follow authoritarian suggestions. Once she did so, I again learned of her desire to remain as she was, at the center of the stage.

Increasing rapport was first established. Then, she was informed of other means available for maintaining continued attention. Finally, she was promised a private room with more physician and nurse attention than her previous roommates could possibly have. She voided spontaneously, did so thrice the following morning, and continued so without further hypnotherapy. Chemotherapy remedied the sepsis, so she was able to go home by the weekend.

Before bidding adieu to the urinary tract, mention should be made of *bedwetting.* This responds to psychotherapy and/or hypnotherapy. I rarely see these patients.

8. Control of pain in *terminal carcinomatosis* is an equally serious problem. Although exodus may be predicted, often for the immediate future, the interval can be most distressing. Every measure of solace is indicated. These patients can be benefited by the ataractic and analgesic effects of hypnosis as well as, or in addition to, those of drugs.

Case Report

D. M. expired of generalized carcinomatosis at the youthful age of 37. A mother of six children, varying in age from 2 to 19, she also had time for extensive participation in church and community affairs. A total mastectomy for duct cell carcinoma had been performed on May 1, 1956. She was apparently well when last seen for postpartum care on May 12, 1958. Ten months later, back pain led to hospitalization and radiologic examination which revealed metastatic malignant involvement of the lungs, liver, thoracic and lumbar spine, rib cage, pelvis and both femurs. She was discharged on April 13, 1959, apparently well enough to resume her normal activities plus taking an automobile trip to Florida for a month's vacation the following winter. She was rehospitalized on November 3, 1960 and expired on December 25, 1960, four and a half years after the initial

diagnosis of carcinoma and one and a half years after evidence of generalized metastatic lesions.

Chemical analgesics and ataractics plus hypnotherapy maintained a considerable degree of comfort during this entire period. Of these, the latter was far and away the more valuable because she was able to dispense with drugs except for rare occasions, yet, resorted to autohypnosis daily. The mechanics taught her consisted of the three "Ds," dissociation, diversion, and descent down a stairway. She learned to employ these at will. I can freely testify to the comforts and peace of mind which this patient obtained for many months prior to her dying day.

9. *Sialosis and hyperemesis* are infrequent but most distressing complications of pregnancy. They usually begin early, may persist throughout pregnancy, and, if uncontrolled, will disturb everyone, patient, husband, family, and physician alike. It is generally believed that these symptoms are psychosomatic expressions of the gravid state. As such, they should respond to hypnotherapy. They do.

I always resort first to medications. Only after these fail to accomplish symptomatic control, is hypnotherapy employed. It has never as yet failed me. After initial trance induction, suggestive, leading, and authoritarian advice is offered. Investigation of psychic and emotional causative factors follow, at the first or at subsequent visits. Usually one or two individual therapeutic sessions suffice. The patient is then invited to our weekly group sessions.

10. I have used hypnoanesthesia for total and adequate *pain control in surgery* for conditions varying from suture of minor lacerations, the reduction and casting of displaced long bone fractures, rhinoplasty, uterine dilatation and curettage, appendectomy, anterior and posterior colporrhaphy, Manchester operation, to cesarean section. When the hypnoanesthetist must also serve as the surgeon, as was the situation in all but the fracture and rhinoplasty cases, the task may become burdensome except for intensive physician motivation. Even so, upon termination of such procedures, I am tired.

11. Finally, let us consider briefly the employment of hypnosis in *obstetric care*. The medical management of pregnancy must be structured differently from that in all other areas of practice. An apparently healthy, young, adult woman seeks care for a "disease" of limited duration. She often expects pain or other noxious symptoms, then will be rarely disappointed. Two individuals of differing physiologic capacity are involved in each unit of responsibility. A third was initially involved but can now only occupy a sideline seat, expectantly or fearfully, happily or dejectedly, passively or demandingly. His emotional response may control that of his expectant wife. Although the physician primarily views obstetric care as insurance for maternal and fetal health, the patient often considers maintenance of her comfort to be his most important responsibility.

Obstetric hypnoanalgesia and hypnoanesthesia, (I prefer the inclusive term hypnoanodynia), may be employed with or without prior conditioning. The patient's initial exposure to hypnosis may be made during the first trimester, on the delivery table, or postpartum for control of afterpains. It may be combined with chemical analgesics and/or anesthetics as a balanced program, or it may serve as the sole anodyne. Conditioning may be done individually or in groups.

Hypnosis reduces or eliminates the need for analgesic and anesthetic drugs, thus creating a more favorable environment for the unborn infant. Added safety for both mother and newborn plus increased maternal tranquility are a sufficient raison d'etre for hypnotherapy.

The poor risk mother, fetal embarrassment, and fetal prematurity are special indications for employing hypnoanodynia.

The hypnotized patient may be permitted to participate comfortably in the emotional experience of her own delivery. She may practice dissociation while ignoring the fetal exit. She may be directed and encouraged to enjoy pleasant hallucinatory experiences while the obstetrician performs his duty.

Not all patients will cooperate sufficiently to permit delivery with the aid of hypnoanesthesia and without adjunctive drug support. Patients will respond differently at different times. Hypnotherapy requires of the physician additional training and understanding. It is also time-consuming and may be inconvenient on occasions. I see no dangers for the physician, for the mother, and certainly none for the infant. Resort to ordinary drug therapy may be done at any time.

The obstetric patient is suppliant. This permits of a high percentage of success, 95 per cent of the last 1200 cases. It has also permitted satisfactory anesthesia without resort to drugs in episiotomy, low and mid-forcep deliveries, repair of extensive vaginal lacerations, internal version, manual removal of retained secundines, and cesarean section.

There is no magic or mysticism about hypnosis. It is a scientific measure which, when indicated and when properly managed, will produce unmatched results. Like other therapeutic measures, its use is delineated by specific indications and contraindications. When properly employed, the physician can be proud because the patient is benefited.

Serum Calcium Determinations in Urolithiasis

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URINARY lithiasis is common in cases of hyperparathyroidism. The incidence in most series is between 48 and 80 per cent.[1,2,3,4] Also, many reports suggest that primary hyperparathyroidism is more common as a factor in the etiology of urinary calculi than has formerly been appreciated.[5,6,7,8] Although the reported incidence of hyperparathyroidism in patients with calculus disease varies between 1 per cent and 15 per cent, the figures of 5 to 8 per cent have gained widespread acceptance.

Since urolithiasis is common in urologic practice, the incidence of hyperparathyroidism must likewise be quite high. It is possible then, that the diagnosis of hyperparathyroidism is more often missed by urologists than any other practitioners of medicine.

The diagnosis of hyperparathyroidism is often difficult to confirm. Some patients with the disease will have normal serum calcium determinations and others will have only intermittent elevations. Thus, repeated serum calcium determinations are often necessary. A low serum phosphorus may be more important than an elevated serum calcium level. Phosphorus reabsorption, calcium loading, and 24 hour calcium and phosphorus excretion studies may be necessary when changes in the serum calcium and phosphorus levels are equivocal. Nevertheless, serial determinations of serum calcium and phosphorus are still the only practical screening tests for establishing the diagnosis of hyperparathyroidism.

It is the purpose of this paper to review the cases of urinary lithiasis seen in the Henry Ford Hospital from January, 1960, through April, 1961, with special emphasis placed on studies obtained to rule out hyperparathyroidism. Since the great majority of these patients were seen in the Outpatient Department, it was not always possible to obtain the desired studies. Many patients passed their stones spontaneously and failed to keep follow-up appointments.

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Methods

During the 16-month period from January, 1960, through April, 1961, a total of 278 patients was seen with urinary lithiasis. In all of these cases the diagnosis was based on symptomatology, urinalysis and demonstration of a calculus on pyelography. During the course of this study, 67 stones were recovered. These included some in which surgical intervention was necessary and also those brought into the clinic for analysis. Most of the stones were passed spontaneously at home and were not recovered. A total of 310 separate serum calcium and phosphorus determinations were done on 210 patients with opaque calculi. The normal values in our laboratory are 9-10 milligrams per cent and 3-4.5 milligrams per cent respectively.

Results

Of the total number of patients, 266 had opaque calculi and of these, 53 were either multiple or recurrent. Eleven typical staghorn calculi were demonstrated and two cases of nephrocalcinosis were seen. Of the 210 patients on whom serum calcium and phosphorus determinations were done, 48 had a history of recurrent calculi, eight had staghorn calculi and two demonstrated nephrocalcinosis. The results of these determinations are shown in Table I and Table II.

The patients studied ranged in age from three years to 80 years with the greatest number occurring in the fourth, fifth and sixth decade. Only three patients were less than 20 years of age. Sixty-seven (20 per cent) were female and 211 (80 per cent) were male.

The results of x-ray defraction analysis are shown in Table III. Fifty-two of the 67 stones contained some combination of calcium. The largest number of stones recovered (39) were pure calcium oxalate.

Table I gives the results of a series of calcium studies on 162 patients who had a single opaque calculus with no history of previous stones. All of the patients had serum calcium values within the limits

of normal. Although we have not tabulated the results, the phosphorus determinations were also normal. Three of these patients had 24-hour calcium determinations or phosphorus reabsorption tests because of several high normal serum calcium determinations.

TABLE I. SERUM CALCIUM VALUES IN PATIENTS HAVING A SINGLE STONE

Range Mg. %	*Number of Patients*
8 — 8.4	1
8.5 — 8.9	17
9.0 — 9.4	47
9.5 — 9.9	47
10.0 — 10.4	45
10.5 — 10.9	5
TOTAL	162

The number denotes the number of cases in which value for calcium was within the indicated range.

These tests all proved to be within normal limits. No bone changes which could be attributed to hyperparathyroidism were seen on roentgenograms in any of these patients.

Table II gives the results of similar studies on patients with recurrent or bilateral calculi. Of these, three patients showed serum calcium values above normal and were admitted to the hospital for further metabolic studies. Four others in this group were further studied because of high normal determinations

TABLE II. SERUM CALCIUM VALUES IN PATIENTS HAVING MULTIPLE OR RECURRENT STONES

Range Mg. %	*Number of Patients*
8.5 — 8.9	0
9.0 — 9.4	8
9.5 — 9.9	17
10.0 — 10.4	17
10.5 — 10.9	3
11.0 — 11.4	3
TOTAL	48

The number denotes the number of cases in which value for calcium was within the indicated range.

of serum calcium. Of the seven patients receiving additional studies, four had normal phosphorus reabsorption and 24-hour urine calcium studies. One patient showed results suggestive of hyperparathyroidism and underwent surgical removal of a parathyroid adenoma. Two other patients are currently undergoing studies and the results of their tests are not completed at the present time.

To summarize the results of this survey, a total of 310 serum calcium determinations were done on 210 patients who came to this clinic with urolithiasis. Three patients had an elevated serum calcium. One of these had a proven parathyroid adenoma and two others are currently undergoing metabolic studies. If we accept that the two patients currently undergoing studies have a parathyroid adenoma, this would give us a total of three patients out of 210 with proven hyperparathyroidism, or an incidence of slightly less than 1.5 per cent. It should be emphasized that each of these three patients had multiple calculi for an incidence of 8 per cent (3 of 48) in those of our series with this problem. None of the patients who had a single stone (162) were proven to have hyperparathyroidism.

TABLE III. X-RAY DEFRACTION ANALYSIS OF 67 RECOVERED STONES

Calcium oxalate	39
Calcium oxalate and apatite	5
Calcium oxalate and uric acid	2
Calcium oxlate and magnesium ammonium phosphate	6
Apatite	6
Apatite and magnesium ammonium phosphate	1
Magnesium ammonium phosphate	3
Uric acid	5
TOTAL	67

Discussion

For many years, it has been observed that the incidence of urolithiasis varies markedly in different sections of the country. This is emphasized by the variation in the size of series describing the incidence of hyperparathyroidism associated with urolithiasis. Prince[9] recently reported on a series of 1681 cases of kidney and ureteral stones seen during a six year period in a southeastern city. Another series,[7] reports on 207 cases seen during a comparable five year period in an eastern hospital. The reported incidence of parathyroid adenomas in the former series was 0.2 per cent, while in the latter series it was 9.7 per cent. Since the incidence of urolithiasis seems to differ so markedly in the two areas, it is doubtful that either is representative of the true incidence of hyperparathyroidism associated with urolithiasis. Prince also describes a seasonal variation in the occurrence of calculi, with the greatest number occurring during the hot summer months. It is doubtful that the incidence of parathyroid adenoma in the general population would show such a seasonal or regional variation.

Another factor which must be considered in evaluating any relationship between the two diseases is the sex ratio. Parathyroid adenomas occur about three times as often in females. Calculi, on the other hand, occur more often in males (3 or 4 to 1). In our series, this ratio was 4 to 1. Since calculi are more infrequent in females, while parathyroid adenoma is more frequent, one might be more suspicious as to the possibility of parathyroid adenoma in a female who presents with urolithiasis than with her male counterpart.

Various authors reporting on the subject of hyperparathyroidism emphasize the importance of obtaining serum calcium and phosphorus studies on all patients with urinary calculi. However, in this present study consisting of 210 patients so studied, there was only one proven case of parathyroid adenoma and two possible cases. According to the currently accepted incidence of urolithiasis caused by hyperparathyroidism, we might have expected 10 to 17 cases to appear in our series.

It is not the purpose of this paper to minimize the importance of the urologist in the diagnosis of hyperparathyroidism. The fact remains that there is a high incidence of urolithiasis in patients who have hyperparathyroidism. However, it should be re-emphasized that a careful history is as valuable in diagnosing the disease as the routine determination of serum calcium. With a more detailed history, patients who show other symptoms referable to parathyroid dysfunction can receive more extensive studies to rule out the disease. The practitioner who deals with calculus disease would do well to remember the twelve points mentioned by Mieher et al,[1] which might give a clue to the diagnosis of hyperparathyroidism:

1. Urinary calculi or renal calcinosis.
2. Recurrent or chronic urinary tract infection; unexplained hematuria and azotemia.
3. Demineralizing or osteolytic skeletal disease.
4. Symptoms of peptic ulcer, with or without x-ray evidence of ulcer.
5. Pancreatitis and/or x-ray evidence of pancreatic calcinosis.
6. Recurrent or persistent vomiting of unexplained cause.
7. Sustained hypertension, especially with renal damage.
8. Unexplained behavioral changes in previously well-adjusted persons.
9. Unexplained polydipsia and polyuria.
10. Patients previously operated on for parathyroid adenoma (should be checked yearly).
11. Patients with symptoms of islet-cell or pituitary adenomas.
12. Family history of hyperparathyroidism.

Summary

Serum calcium and phosphorus determinations were done on 210 patients with urinary lithiasis. One proven case of parathyroid adenoma and two possible cases were found. The incidence of hyperparathyroidism associated with urolithiasis in this series is somewhat lower than that generally reported.

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Acute Conditions in Children Reported

A National Health Survey covering July 1960 to June 1961 indicated that children 5 to 14 years of age averaged 2.6 acute conditions.

This was more than any other age group with the exception of those children under 5 years who averaged 3.7 conditions. Boys averaged slightly more acute health conditions.

The biggest difference was in farm areas where there were 2.1 acute conditions for each boy compared to 1.9 for the girls. On the whole, children living on farms had 2.0 acute conditions as compared to 2.6 and 2.7, respectively, for those residing in rural non-farm areas and cities.

Ligation of the Internal Iliac Arteries

A Life-Saving Procedure in Uncontrollable Gynecologic and Obstetric Hemorrhage

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IT IS the purpose of this exhibit to show the surgical anatomy of the internal iliac (hypogastric) arteries, indications both definitive and prophylactic for its ligation as a life-saving measure for arresting uncontrollable gynecologic and obstetric hemorrhage, and the technics of approach for ligation.

When the conservative standard procedures of packing, suturing, uterine massage, multiple transfusions, plasma and various hemostatic agents fail to control hemorrhage, ligation of the internal iliac either unilaterally or bilaterally, as required, will in our experience, arrest hemorrhage without circulatory starvation because of the adequate collateral circulation that exists.

Surgical Anatomy

The internal iliac (hypogastric) artery arises from the bifurcation of the common iliac artery opposite the upper part of the sacroiliac joint at the level of the lumbo-sacral disc. It is about 1½ inches in length. It descends into the true pelvis dividing into a posterior and anterior division supplying the viscera, muscles and fascia of the pelvis and the gluteal, perineal and ano-rectal regions.

The important relations of the internal iliac artery are:

1. Antero-medially—covered by peritoneum. (The internal iliac is retroperitoneal).
2. Anteriorly—the ureter (retroperitoneal and attached to the peritoneum).
3. Postero-laterally—the external iliac vein and obturator nerve.
4. Postero-medially—the internal iliac vein.
5. Laterally—the major and minor psoas muscles.

Collateral Circulation

Blood supply to the pelvic structures after unilateral ligation of the internal iliac artery is carried on by anastomosis of:[1]

TABLE I. BRANCHES OF THE INTERNAL ILIAC ARTERY

Posterior Division	Anterior Division	
Parietal	*Parietal*	*Visceral*
Ilio-lumbar	Obturator	Umbilical
Lateral sacral	Internal pudendal	Superior vesical
Superior gluteal	Inferior gluteal	Middle hemorrhoidal
		Uterine
		Vaginal

1. The uterine and ovarian arteries.
2. The vesicle arteries of the two sides.
3. The hemorrhoidal branches of the internal iliac arteries with those from the inferior mesenteric artery.
4. The obturator artery by means of its pubic branch with the vessels of the opposite side.
5. The inferior epigastric and medial femoral circumflex artery.
6. The circumflex and perforating branches of the profunda femoris with the inferior gluteal artery.
7. The superior gluteal with posterior branches of the lateral sacral arteries.
8. The ilio-lumbar with the last lumbar artery.
9. The lateral sacral with the middle sacral artery.
10. The iliac circumflex with the ilio-lumbar and superior gluteal artery.

Circulation to the pelvic structures following bilateral ligation of the internal iliac is effected through:

1. Both ovarian arteries (from the aorta).
2. Branches from the inferior epigastric artery (from the external iliac) of both sides.
3. Superior hemorrhoidal artery (from the inferior mesenteric artery).
4. Circumflex and perforating branches of the deep femoral arteries of both sides.
5. Lower lumbar arteries of both sides (from the aorta).

From The Cook County Hospital, The Chicago Medical School, Cook County Graduate School, Chicago, Illinois.

1. Gray's Anatomy, 24th edition, p. 616.

In our experience, we have not encountered a single case of circulatory deficiency with clinical sloughing or atrophy in either unilateral or bilateral ligation of the internal iliac arteries.

Indications for Ligation of the Internal Iliac Arteries When Conventional Methods Have Failed

Definitive

1. Both ovarian arteries (from the aorta). total abdominal hysterectomy.
2. Uncontrollable vaginal vault bleeding following vaginal hysterectomy.
3. Wertheim hysterectomy.

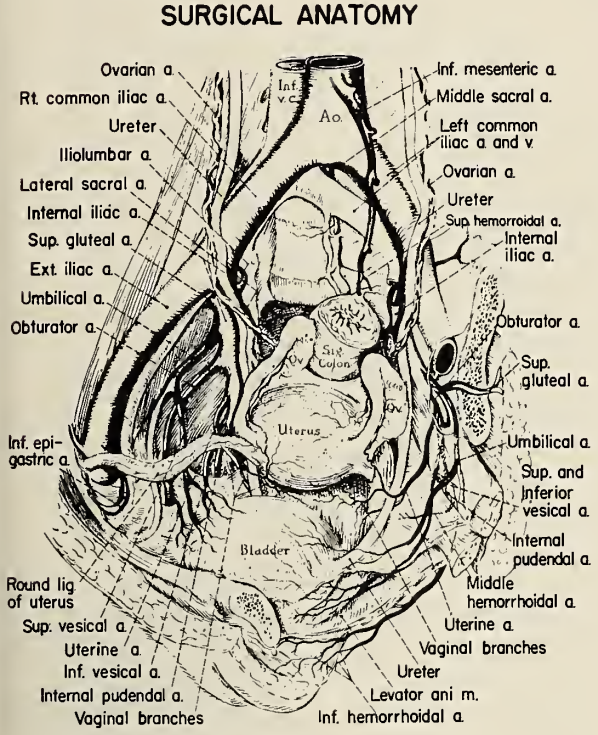


Fig. 1.

4. Uncontrollable bleeding in the angles of the vagina and lower cardinal ligaments after total abdominal hysterectomy.
5. Carcinoma of the cervix with uncontrollable hemorrhage. Also ligate both ovarian arteries in the outer border of the broad ligament.
6. Carcinoma of the vagina with uncontrollable hemorrhage. Also ligate both ovarian arteries in the outer border of the broad ligament.
7. Advanced carcinoma of the endometrium with uncontrollable hemorrhage.
8. Ruptured uterus with the uterine artery torn from its origin, the internal iliac artery.
9. Placenta accreta with considerable oozing when the patient may either be very young or her condition may not warrant a hysterectomy.
10. Atony of the uterus with uncontrollable hemorrhage. (Ligation may be done prophylactically before hysterectomy, or as the only life-saving procedure if the patient is in no condition for a hysterectomy.)
11. Precipitate labor with laceration of the broad ligament, cervix and/or vagina.
12. Uncontrollable hemorrhage post-cesarean due to atony of the lower uterine segment, especially in conjunction with placenta previa when the patient's condition would not stand a hysterectomy.
13. Pelvic exenteration surgery.
14. Placenta previa centralis with atony and hemorrhage.

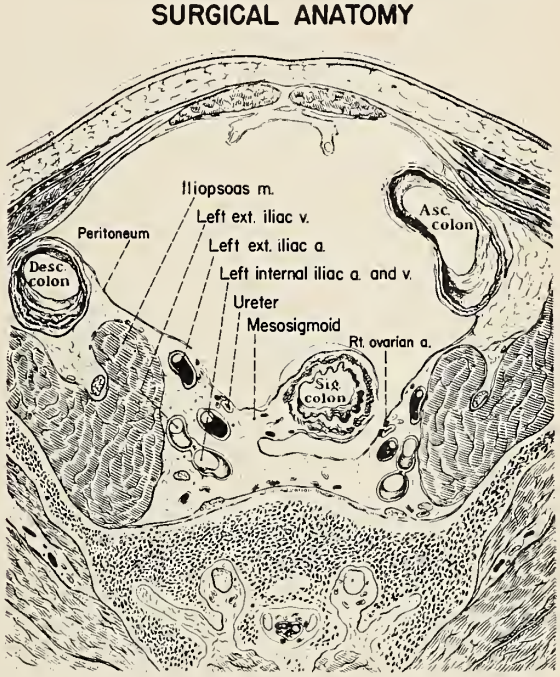


Fig. 2.

Prophylactic

1. Huge fibroids with considerable fixation which may require morcellation.
2. Broad ligament hematomas.
3. Extensive endometriosis with possible generalized oozing.
4. Extensive pelvic inflammatory disease with possible generalized oozing and bleeding.
5. Intraligamentary fibroid with bleeding and hematoma formation.
6. Fibro-sarcoma if it is possible to determine this diagnosis at the operating table grossly or on frozen section; to minimize metastases.

7. Multiple myomectomies with extensive bleeding.
8. Radical vulvectomy to minimize bleeding.
9. Huge ovarian cysts with fixation and bleeding when a total hysterectomy is done after the cystectomy.

peritoneum over the common iliac is elevated and cut, exposing 3 to 4 inches of retroperitoneal space. The abundant areolar tissue is cleared away with a grooved director, Mixter forceps or moist sponge exposing the pulsating arteries and the ureter which are then palpated and identified; the common iliac, the external

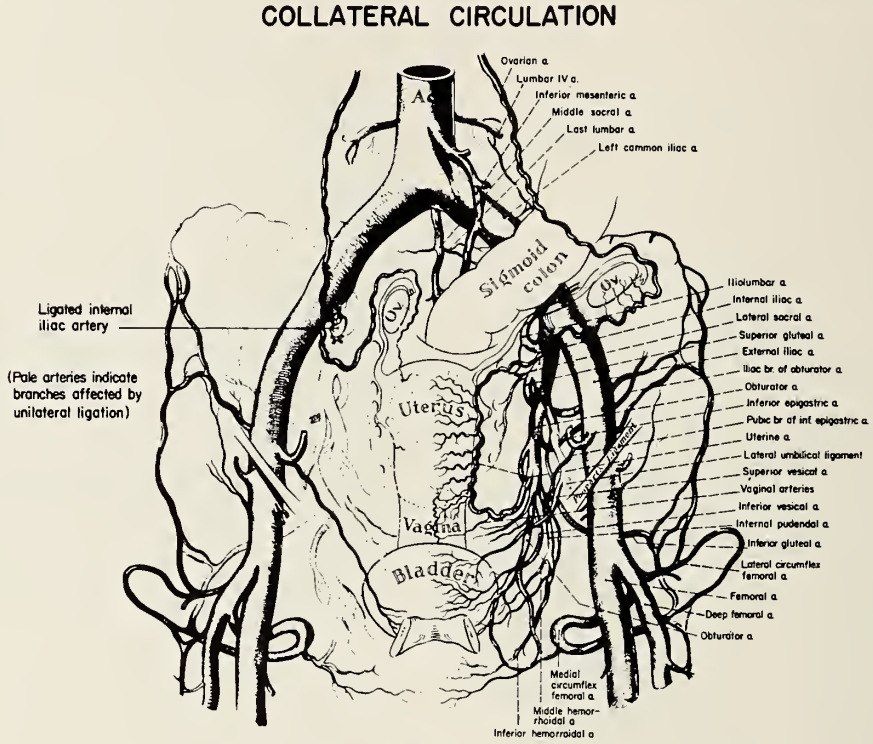


Fig. 3.

10. Couvelair uterus and a cesarean hysterectomy.
11. Abrupto-placenta with atony not influenced by pitocin and ergotrate and/or in fibrinolysis.
12. In some cases of abdominal pregnancy where the placenta is implanted within the pelvic area.

Surgical Technique

Transabdominal Approach

Incision.—The patient is in the Trendelenburg position. We suggest that the surgeon work on the side of the patient opposite the artery to be ligated for better visualization. The midline incision is preferred since uncontrolled hemorrhage often requires bilateral ligation of the internal iliac vessels and also avoids cutting any large branches of the inferior epigastric artery.

The bowel is walled off and packed as high as possible in the upper abdomen. The area to be exposed must be free of any bowel or lap sponges. The ureter crosses the common iliac at the bifurcation and is usually attached to the posterior peritoneum. The iliac coursing toward the leg and the internal iliac coursing into the true pelvis.

Ligation.—The internal iliac artery is elevated with a Mixter forceps, and two umbilical cord ties or two braided silk sutures are used to ligate the vessel. The ligatures are placed approximately ¼ to ½ inch apart. *We do not cut between the ligatures.* The same technique is used to ligate the vessel on the left side as on the right.

Closure.—The peritoneum is closed with interrupted triple O catgut sutures. We do not recommend the use of a continuous suture because it may kink the ureter. In ligating the left internal iliac it may be necessary to mobilize the sigmoid colon free from the area of the vessels. This is done by incising the lateral part of the peritoneum ("the white line") and reflecting the sigmoid medially to expose the vessels. The peritoneum of the sigmoid colon is restored by interrupted chromic O catgut sutures.

Extraperitoneal Approach

Incision.—The patient is in the Trendelenburg position. We use exclusively the extraperitoneal approach in all cases of carcinoma of the cervix in which hemorrhage is intractable and must be stopped. The skin incision is in the inguinal and iliac area parallel with the course of the external oblique muscle, 1 or 2 inches from the anterior superior spine of the ilium extending about 1¼ inches above and 1¼ inches below the spine. The fat and areolar tissues are dissected away and then a muscle-splitting incision is made and the peritoneum exposed. The parietal peritoneum is gently reflected medially exposing the posterior peritoneum with the vessels palpable beneath.

SURGICAL TECHNIC: Transabdominal Approach

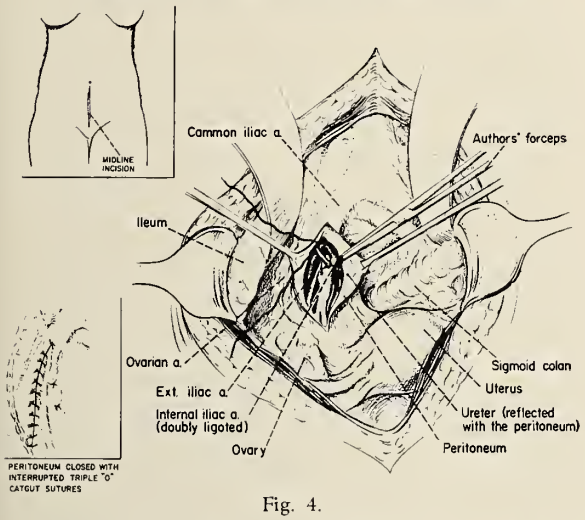


Fig. 4.

Ligation and Closure.—The vessels are tied in the same manner as they are in the transabdominal approach. The inguinal structures are brought together with silk sutures.

Postoperative Care

In all of our indications for recommending ligation of the internal iliac artery, there is always some serosanguineous exudate and/or hematomas that are to be dealt with postoperatively. We use injectable Chymotrypsin* and oral enzyme tablets** as a follow-up in all of these cases. The anti-inflammatory effect of the chymotrypsin minimizes secondary infections and facilitates absorption of the exudates and reduces edema. While still in the hospital, the patient receives a chymotrypsin injection 1 cc. t.i.d. intramuscularly, and when she is able to leave the hospital she receives the oral form 2 tablets q.i.d. as a follow-up for seven to 12 days. Antibiotics are also used in conjunction with the above preparation. We feel that the adjunct use of chymotrypsin enhances the action of the antibiotics.

*Chymar
**Chymoral

SURGICAL TECHNIC: Extraperitoneal Approach

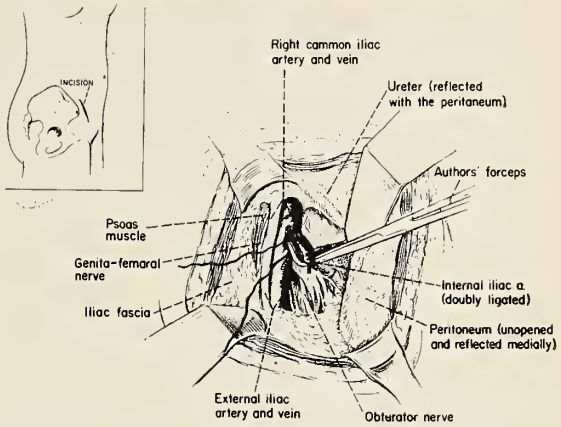


Fig. 5.

Summary

1. Allowing hemorrhage to continue without some definitive action is gross negligence on the part of the surgeon and may certainly lead to mortality.

2. When gynecologic or obstetric hemorrhage is uncontrollable with the standard conservative procedures of packing, suturing, massage, transfusions, plasma and various hemostatic materials and life itself is threatened, *do not wait* to ligate one or both of the internal iliac arteries to stop the hemorrhage.

3. Collateral circulation is adequate for the pelvic organs and structures to carry on their functions even after bilateral ligation of the internal iliac arteries. A thorough knowledge of the anatomy and circulation of the pelvic floor and organs is mandatory.

4. In our experience we have not seen a single case in which either unilateral or bilateral ligation of the internal iliac vessels has caused any type of circulatory embarrassment or distress in the pelvic viscera.

5. The indications in this report are those with which we are familiar from our own practices. There are other gynecologic and obstetric indications in which ligation of the internal iliac artery is mandatory to stop a hemorrhage.

6. Chymotrypsin and oral enzyme tablets used according to the recommended dosage are valuable in reducing edema and facilitating absorption of the exudates usually found in these indications. When used with antibiotics the adjunct use of chymotrypsin enhances the action of the antibiotics in minimizing secondary infections.

7. *Act with dispatch to save a life!*

Management of Ocular Inflammations

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THE EYE may be inflamed from many causes. Since redness and swelling are often the only visible manifestations, a thorough examination of the eye and adnexa is essential to accurate diagnosis and effective treatment.

Examination of the Eye

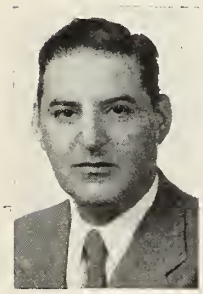
The basic equipment necessary for a simple examination of the eye, includes a vision chart, a good focal light, a means of magnification, an ophthalmoscope, topical anesthetic, and fluorescein. The popular head band loupe containing either +5 or +7 diopter lenses with a similar amount of prism, facilitates ocular examination under magnification at close range.

Foreign Bodies

Conjunctival and corneal foreign bodies constitute a frequent source of eye trauma and when neglected or mismanaged can lead to serious loss of vision. They may carry bacteria into the cornea or cause corneal abrasions resulting in ulcers. Eversion of the upper eyelid to rule out the presence of foreign bodies is the first step in the examination of an irritated eye. If a foreign body is found, a moistened toothpick applicator will serve to lift it from the lid. No further treatment is required.

Corneal foreign bodies and minute lesions are often difficult to visualize. One or two per cent sterile fluorescein will stain the denuded area of the corneal epithelium green and thus highlight the foreign body or lesion. Foreign bodies of the cornea can frequently be irrigated off with a squeeze bottle containing sterile saline or water, after the eye has been subjected to topical anesthesia, or may be lifted off with the point of a sterile hypodermic needle. Attempts to wipe the object off with a moistened applicator may damage the cornea.

Corneal foreign bodies cause varying degrees of epithelial loss and discomfort. For that reason it is wise to apply an eye patch for several hours. If a sterile instrument has been used for removal of the irritant, and if the eye does not appear to be infected, simple irrigation with any bland, sterile solution suffices; further medication is unnecessary.



The Author
DAN M. GORDON, M.D.

Lesions of the Eyelids and Conjunctiva

Inflammation of the eyelids arising from internal sty (meibomitis) or external sty (hordeolum) is always associated with tender swelling of the involved lid.

Inflammatory lesions of the conjunctiva produce engorgement of the conjunctival vessels, visible as an injection of the mucosal covering of the eye (bulbar conjunctiva) if that portion is affected. At times the injection (conjunctivitis) is confined to the palpebral conjunctiva which lines the lids. The inner eyelid surface may be red, with or without discharge. When the bulbar conjunctiva is involved, the eye may appear almost malignantly inflamed. The conjunctival vessels which emanate from the lid areas are irregular in their course. In contrast, the ciliary vessels are straight and fan out from the limbals. Differentiation between a conjunctival injection and the ciliary injection occurring in involvement of the iris or ciliary body and in acute or chronic congestive glaucoma presents an important diagnostic problem. If the physician takes the patient's lower lid and presses it firmly against the limbus with his thumb and, while maintaining that pressure, slowly draws the lower lid downward, an area of paleness will appear at the site of pressure. If the injection is conjunctival, the area of pallor will persist as the lower lid is drawn down under pressure. This indicates that the disease is superficial. If the area pales momentarily only to redden again immediately as the lower lid is pulled down under pressure, one can deduce that ciliary injection is present, and that the causative lesion probably lies within the eye itself.

All forms of conjunctivitis tend to cause discomfort rather than pain, accompanied by a sandy or scratchy sensation. If the conjunctiva is injected with or without discharge, one may assume that he is dealing with inflammation, possibly with infection. Steroid-anti-

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microbial combinations* are indicated and are usually gratifyingly effective. If the palpebral conjunctiva appears pale and watery, the inflammation is probably allergic and calls for a topical steroid preparation.

Episcleritis and Scleritis

In episcleritis, an inflammation of the episcleral tissues, the red area characteristically is localized, although it may sometimes be widespread. Contrasted with conjunctivitis, there is a red or mildly purplish appearing area, exquisitely tender when palpated through the overlying lid. Episcleritis usually responds to frequently applied topical steroids. Occasionally episcleritis precedes iridocyclitis.

Inflammation of the sclera (scleritis) is a grave condition which should be treated by an ophthalmologist. Often associated with rheumatoid arthritis and perhaps progressing to nodular involvement or actual ulceration, scleritis produces a deep purplish discoloration of the white of the eye, with overlying conjunctival injection. It demands intensive systemic and topical steroid therapy.

Keratitis and Other Corneal Lesions

Inflammation of the cornea (keratitis), usually accompanied by pain and localized or generalized ciliary injection, conjunctival injection, or both, is always serious. Part or all of the normally mirror-like surface of the cornea appears irregular or glazed and the light reflexes from it are roughened or irregular. It is important to rule out herpes simplex (dendritic keratitis), which characteristically consists of a single or multiple branching lesion with a round, knob-like excrescence at the terminus of each branch. Normally the cornea is sensitive to touch when tested with a tightly wound wisp of cotton. Dendritic keratitis, commonly unilateral, produces corneal hyperesthesia or anesthesia. One should test the unanesthetized eye to determine whether it is anesthetic. Sensation in the uninvolved eye should also be tested for comparison. If the affected eye is anesthetic, dendritic keratitis is to be suspected until proved otherwise. Topical steroids† are contraindicated in herpes simplex keratitis as well as in the rarer fungal keratitis. In localities where pathogenic fungi are endemic, the possibility of fungal keratitis should be kept in mind. Appropriate culture technics are necessary for accurate diagnosis. Fluorescein staining facilitates diagnosis when corneal epithelium has been destroyed. If a dendritic (branching-type) lesion is evident, one is likely dealing with herpes simplex keratitis. Since all keratitides are true emergencies, they shouuld be treated by an ophthalmologist.

Catarrhal (limbal) ulcers appear as staining infiltrated, gelatinous appearing areas at the corneal limbus with a contiguous area of conjunctival injection. These lesions respond well to topical steroid-antimicrobial combinations, applied frequently (4 to 8 times daily).

True corneal ulcers usually occur away from the limbus and cause a definite loss of epithelium. Often an associated iritis or actual pus hypopyon in the anterior chamber is seen. Ulcers frequently follow trauma and identification of the offending organism by culture facilitates treatment. While awaiting the laboratory report, the patient may be treated with systemic as well as with topically applied broad spectrum antimicrobials plus either colistin or polymyxin B, in the event that pseudomonas is present. Concomitant topical and occasionally systemic steroids benefit the patient, provided that herpes simplex or fungal involvement is absent. All these medicaments should be given frequently and in large doses. Topical mercurials (thimerosol ointment)** are indicated if fungi are present or suspected. Any patient with a corneal ulcer should be referred to an ophthalmologist at once.

Hemorrhagic or Purulent Conditions

Subconjunctival hemorrhage causes a painless, "bloodshot" eye which comes on spontaneously, and asymptomatically. Upon inspection, one sees that extravasated blood has caused this condition, which normally will undergo spontaneous absorption within two weeks. To prevent further bleeding, cold applications may be used over the closed lids for five minutes several times during the first two days. Later, hot compresses for ten minutes two or three times a day aid in absorbing the blood. They usually follow some straining and are of no prognostic significance.

Hyphema (blood in the anterior chamber) indicates damage to the inner eye, and is usually traceable to trauma or intraocular neoplasm. An associated secondary rise in intraocular pressure frequently occurs. A fixed or distorted pupil, a tremulous iris, a shallow anterior chamber, or a marked disturbance in the red pupillary reflex as seen with the ophthalmoscope indicates intraocular damage, especially when preceded by trauma. Pus in the anterior chamber (hypopyon) may be associated with serpiginous ulcer of the cornea, uveitis or intraocular infection.

Intraocular Inflammation

Inflammation of the inner eye may cause external redness and, while it is rarely as obvious as that pro-

*Such as Neodecadron® (neomycin and dexamethasone).

†Unless IDV is employed simultaneously in dendritic keratitis.

**Merthiolate® 1:4000.

duced by conjunctivitis, is of more serious import. It usually produces blurring or loss of vision. The most common such cause of external redness is iritis (iridocyclitis), which produces ciliary injection. Mild edema as well as deposits on the endothelial (posterior) surface of the cornea may be evident. The iris markings exhibit varying degrees of obscuration. The pupil may be smaller than normal and sluggish in its responses. Grayish fibrin in the anterior chamber may tend to obliterate the normal black appearance of the pupil. Since iritis may be a signal of disease of the posterior eye, e.g., choroiditis, generalized uveitis, or optic neuritis, injection of the external eye demands inspection and ophthalmoscopic examination of the inner eye. All inflammations and diseases of the inner eye should be treated by an ophthalmologist.

Acute choroiditis (inflammation of the choroid) may involve the retina as well. Ophthalmoscopically, it appears as a raised yellow area, poorly delineated and often associated with vitreous opacities. Inflammation of the optic nerve (optic neuritis) may sometimes be accompanied by uveitis or external ocular inflammation. Retrobulbar neuritis produces mild to marked disturbance of vision, with pain on motion of the affected globe. The disc is usually normal, ophthalmoscopically, in contrast to the inflamed, swollen disc in optic neuritis. Optic and retrobulbar neuritis as well as uveitis demand immediate treatment.

Glaucoma

When full-blown, acute glaucoma is an excruciatingly painful condition. Attacks vary in severity. The eye may range from a hard to a rock-hard consistency. The greater and more rapid the rise in pressure, the more sudden and intense the visual loss. The cornea becomes edematous and glazed, losing its normal mirror-like appearance. Iris markings are muddy and the pupil is dilated and fixed. To get an idea of intraocular pressure, the globe should be palpated through the upper lid. While the physician holds the eye firm with one index finger, he uses the other to make gentle pressure against the globe, and vice versa. This procedure will serve to reveal if the pressure is significantly elevated, especially in comparison with findings in the other eye if the latter is not involved. Tonometry is more accurate. The non-ophthalmologist frequently confuses acute glaucoma with conjunctivitis. The latter never causes loss of vision or true pain. A red eye with blurred or diminished vision must be suspected of having uveitis or acute glaucoma until proved otherwise.

Although iridocyclitis is not as painful as glaucoma and rarely causes rapid, intense visual loss, it may be confused with acute glaucoma. Table I, comparing the signs and symptoms typically encountered in acute conjunctivitis. acute iritis, and acute glaucoma respectively, presents helpful differential points. Since the treatments for these eye diseases are diametrically

TABLE I. DIFFERENTIAL DIAGNOSIS

	Acute Iritis	Acute Glaucoma	Acute Conjunctivitis
Injection	Ciliary (deep)	Ciliary (deep)	Conjunctival (superficial)
Pain	Moderate	Severe	Sandy sensation
Vision	Impaired	Severely impaired	Normal
Pupil	Small	Dilated	Normal
Discharge	None	None	Watery to purulent
Anterior chamber	Normal	Shallow	Normal
Media	Corneal deposits Hazy aqueous	Steamy cornea	Clear
Iris	Muddy markings	Congested	Normal
Intra-ocular pressure	Usually normal	Elevated	Normal

different one must not prescribe the wrong therapy if serious harm is to be avoided. If the physician is not sure of the diagnosis, he should use neither a miotic nor a mydriatic, as their improper use can be dangerous. Acute iritis responds to steroids when administered topically and systemically in adequate doses. Many doctors prescribe atropine routinely in the treatment of iritis. Acute glaucoma, however, demands intensive miotic therapy in addition to the use of carbonic anhydrase inhibitors, such as dichlorphenamide and possibly intravenous urea. When an ophthalmologist is not available, and the physician cannot differentiate between acute iridocyclitis and an acute glaucoma, a doube to quadruple dose of carbonic anhydrase inhibitor may be given without ill effects.

However, one should not risk the error of using a miotic when a mydriatic is indicated, or the reverse. Topical steroids are beneficial in acute iritis and to a degree in acute glaucoma in preventing formation of anterior synechiæ. When acute iridocyclitis goes untreated, posterior synechiæ often develop between iris and lens. If these adhesions completely bind the pupil down to the lens, seclusion of the pupil results, thus preventing the aqueous behind the iris from coming forward into the anterior chamber. The aqueous pushes the iris anteriorly, creating a ballooning appearance (iris bombé) with secondary glaucoma, which must be treated. Conjunctivitis never causes iris adhesions.

Some Guiding Principles of Therapy

In the management of the inflamed eye, the maxim that all therapy should have a rational basis and not be given simply for the sake of doing something, is particularly applicable.

The introduction of steroids has revolutionized the treatment of many ocular diseases, especially inflammations and allergies. It is a sine qua non of steroid administration as well as of most other ocular therapy that the lesion be saturated with the medication. To that end, it is usually essential to apply steroid or antimicrobial topical preparations every hour, or oftener, during the acute phase of the disease. If the eye has good vision, one should order drops rather than ointments for daytime use, since the latter blur vision. Ointments are usually reserved for use at night, as drops have less duration of contact and activity than ointments and must be applied more frequently. If vision is markedly decreased, or if the situation is serious, ointments can be used continuously.

It is important that medication be administered by the proper route to reach the site of disease. As a rule, if the lesion can be seen with the naked eye, frequent topical application of drops or ointments will arrest progress in most lesions of the lids, conjunctiva, episclera, sclera (in some cases), cornea and iris (in many cases). When the lesion is posterior, affecting the choroid, retina, optic nerve or orbit, full systemic medication by oral or parenteral route is mandatory. Inflammation or allergic involvement which normally should respond to topical medication demands systemic treatment if the condition fails to improve, or if it becomes worse after a day or two of topical therapy. The physician must decide whether failure results from the fact that the therapy employed has been given by an inappropriate or contraindicated route, or because of incorrect diagnosis.

Herpes simplex keratitis is a contraindication to steroid therapy.‡ It is treated by broad removal of the diseased and surrounding corneal epithelium. Fungal keratitis, in which steroid therapy is also contraindicated, is difficult to treat but may respond to antifungal agents as amphotericin B systemically and topically or nystatin, or topical mercurials, as thimerosol 1:4000.

To patch or not to patch is a question raised frequently. If purulent discharge is present, one should not patch, if possible, as the retained pus will macerate and infect the cornea.

In the presence of infection antimicrobials are indicated. Their action is often enhanced by the simultaneous use of steroids. The tendency is to employ topically those antimicrobials which are not commonly used systemically. For that reason neomycin sulfate, which possesses a rather broad range of action (including Morax - Axenfeld diplobacillus, staphylococcus, pneumococcus, Koch-Wecks bacillus, proteus vulgaris and streptococcus), is a favorite.

Some patients with episcleritis, and most of those with scleritis, do not respond to topical steroids alone, but require additional steroids systemically for good results. This is also true of many patients with iridocyclitis.

The organisms causing true corneal ulcers should be identified by means of cultures. In the interim, broad spectrum antibiotics plus either polymyxin B sulfate or colistin should be applied topically, with penicillin and broad spectrum antibiotics given systemically. Pseudomonas aeruginosa, most refractory of all ocular infective agents, can prove highly resistant to treatment. Accordingly, polymyxin B sulfate or colistin, or both, should be added to the regimen while a specific diagnosis is being made.

It is wise to use systemic steroids in adequate doses (3.0 to 4.5 mg. or more of dexamethasone§ or the equivalent in other steroids, or 80 to 120 units of corticotropin) in iritis, choroiditis and optic neuritis, adding topical steroids in iritis. Mydriatics are indicated in iritis if adhesions between the iris and the lens are present or forming. Development of synechiæ usually is inhibited by or dissipated during steroid therapy.

Acute glaucoma should be treated immediately by 200 mg. of dichlorphanamide or the equivalent of other carbonic enhydrase inhibitors. If this has not adequate reduced the intraocular pressure within approximately ninety minutes, an intravenous injection of acetazolamide (500 mg.) or urea (1 gr. per kg. of body weight) should be given. One should explain to the patient that he may expect subsequent attacks, which can probably he prevented by peripheral iridectomy following the first attack.

Inflammation of the eye is always uncomfortable and often serious, depending upon the site and type of involvement. The physician should always attempt to make a diagnosis, or at least a differential diagnosis, to determine the severity of the disease and to decide whether he can safely treat it or whether it should have more specialized care. If the pain is not caused by some easily recognizable agent such as a foreign body, or if vision is appreciably reduced and the loss cannot be attributed to a simple cause such as lacrimation or conjunctival discharge, the patient should be referred to an ophthalmologist. If the globe has suffered trauma that eye should be patched or, if the globe is lacerated, both eyes should be patched gently, and patient referred at once for specialized treatment.

‡IDV is now proving efficacious in the experimental treatment of herpes simplex keratitis.

§Decadron®.

Acute Pulmonary Edema

Occurrence During Surgical and Obstetrical Procedures

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Detroit, Michigan

THE OCCURRENCE of acute pulmonary edema during the course of a surgical or obstetrical procedure represents a crisis of the highest magnitude.

It is a life threatening situation requiring immediate recognition and rapid, effective treatment. Other similar reports in the literature attest to the gravity of this complication.[1,2]

This paper reports this complication as it occurred in four patients on the surgical and obstetrical services of The Grace Hospital over a five-year period.

Case Reports

Case 1.—On April 9, 1956, Mrs. A. F., a 46-year-old obese, white woman, was admitted to The Grace Hospital for surgery with a diagnosis of fibroid uterous, menorrhagia, and stress incontinence. Because of a severe language barrier, it was difficult to obtain a good history, but it was ascertained that the patient had been in relatively good health, having had no serious illness nor major surgery.

The physical examination showed the blood pressure to be 120/85 mm Hg; pulse regular, rate 80. Heart was in normal sinus rhythm; no murmurs were present, and there was questionable slight enlargement to the left. The lungs were clear to auscultation and percussion. Vaginal examination revealed a relaxed perineum, cystocoele, and a fibroid uterus four times normal size.

Laboratory studies showed: Urine, normal; Blood, Hb 14.0 Gms; RBC, 4.4 million/cmm.; FBS, 146 mgm per cent; NPN, 38 mgm per cent; ECG, reported as essentially normal with slight myocardial damage; Chest radiograph, normal.

In view of the fasting blood sugar report, a glucose tolerance test was performed. This resulted in a diabetic curve. As a result, the patient was placed on regular urine testing and insulin to be given accordingly. In addition to this, the patient was placed on a diabetic diet. Surgery was postponed for a few days in order to further evaluate the patient.



The Author

RAYMOND D. SPHIRE, M.D.

On April 16, seven days later, the patient was sent to surgery. Pre-operative medication consisted of Demerol 100 mgm and atropine 0.4 mgm one hour before surgery.

At 7:40 a.m., the preanesthetic blood pressure was 140/80 and the patient was given Ephedrine sulphate 50 mgm intramuscuarly. At 8:00 a.m., the patient was given a spinal anesthetic, Pontocaine HCl 12 mgm in 1.2 cc Dextrose 10 per cent. Anesthetic level as tested by pinprick was to the fifth thoracic dermatome.

Following this, the patient was given an initial sleep dose of Pentothal, 500 mgm, then carried on a N_2O-O_2 mixture of 4 liter/min. flow of each.

At 8:10 a.m., the patient was placed in the lithotomy position for dilatation and curettage. At 8:30 a.m., concurrent with lowering of the legs following the dilatation and curettage, the blood pressure fell to 80/40. A Neosynephrine drip (10 mgm in 500 cc 5 per cent Dextrose/H_2O) was begun immediately. The blood pressure rose quickly but in so doing went to 180/100; it then returned slowly to more normal levels. The patient was placed in 25° Trendelenburg position at 8:50 a.m., for the hysterectomy.

At 9:00 a.m., blood pressure difficulties were again encountered and since more than usual blood loss was occurring, a unit of blood was started. However, the blood pressure continued to fall and at this time it was noted that the respirations began to sound very wet. Fluid could be seen at the angles of the mouth through the transparent face mask and it was thought that passive regurgitation had taken place. The mask was quickly removed and aspiration of the mouth and pharynx was performed. But as quickly as the throat was suctioned, more fluid appeared.

The patient had now become quite cyanotic, and there was an associated marked engorgement of the neck veins. An endotracheal tube was inserted and from it gushed pink frothy fluid. It was apparent that the patient was in acute pulmonary edema.

Treatment consisted of intermittent positive pressure breathing with 100 per cent O_2. The patient was placed in steep reverse Trendelenburg position and all infusions were stopped. Digitoxin 0.8 mgm was given intravenously. It was decided to complete the operative procedure as expeditiously as possible and everything would be done to maintain the patient. The pressure continued to remain low, ranging from 0-65 mm Hg systolic; the pulse rate maintained at approxi-

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From the Section of Anesthesia, The Grace Hospital, Detroit, Michigan.

mately 100±20 and the respirations were controlled by high intermittent positive pressure breathing.

The patient's condition remained precarious. Surgery was completed, and the endotracheal tube was left in place. At this time, there were only scattered râles at the posterior lung base. The patient was sent to the post-anesthetic room on continued therapy.

Another 0.2 mgm of Digitoxin was given intravenously at 12:00 noon. At 1:00 p.m., the patient was awake, and the endotracheal tube was removed. The blood pressure was 110/70, pulse 86, respiration 22. She had improved considerably and was no longer cyanotic. An electrocardiogram taken in the post-anesthetic room was read as showing left ventricular myocardial damage. The patient showed good progress postoperatively and was discharged on May 4, 1956 in good condition.

Comment.—Analysis of the events leading up to the onset of acute pulmonary edema in this case were as follows:

1. The fundamental deficit in myocardial function and reserve exhibited by the heart.

2. Acute myocardial hypoxia occurring as a result of severe hypotension following the administration of the spinal anesthetic.[3]

3. Increased work load imposed on an already distressed myocardium by the use of Neosynephrine as a vasopressor.[4] The vasopressor action of this drug results from an increase in total peripheral resistance.

4. Further increased load on cardiac and respiratory function by use of steep Trendelenburg position.[5]

Case 2.—At 7:30 a.m., on March 16, 1959, Mrs. C. F. M., a 33-year-old white gravida 1 para 0 with known mitral stenosis (Grade 11A), was admitted to the Obstetrical Division of The Grace Hospital in early active labor.

She had been under the continuing care of a cardiologist because of her valvular disease, and she was thought to be doing very well.

In the first trimester, there had been an episode of congestive failure which was quickly controlled and the remainder of the pregnancy was uneventful. The labor progressed smoothly; the blood pressure was 120/78, pulse 80, respiration 18. At 1:00 p.m., with a station of +1 cm. and cervical dilatation of 6 cm. it was decided to initiate a continuous caudal anesthesia (Xylocaine 1 per cent), rupture membranes and then begin an intravenous infusion of Pitocin. These steps were accomplished and the patient's general condition was satisfactory; however, it became apparent at 4:45 p.m. that no progress was being made in the labor.

At this point, both the anesthetic and the Pitocin infusion were temporarily discontinued and x-ray pelvimetry was obtained. The pelvimetry studies revealed a pelvis of borderline adequacy, the interspinous measurement being 9.8 cm., slightly below normal.

At 6:30 p.m., the patient became quite apprenhensive and excited. The pulse rate was 120 and moist râles appeared at the lung bases. In 15 minutes the patient was markedly dyspneic and cyanotic. The blood pressure was 50/0 and very moist bubbling râles were heard to the level of the clavicles.

In view of this situation, it was decided to do an immediate caesarean section under high spinal anesthesia. At 6:55 p.m., a spinal anesthetic (Pontocaine 10 mgm, Dextrose 1.5 cc 10 per cent) was administered and a level to T-4 was quickly obtained. Endotracheal intubation was then accomplished under topical anesthesia. As soon as the tube was is place pink frothy fluid geysered forth from the tube. The tracheo-bronchial tree was aspirated and intermittent positive pressure breathing with 100 per cent O_2 was begun. The patient was then placed in steep reverse Trendelenburg position and at 7:07 p.m., the incision was made. At 7:10 p.m., a living female infant was delivered. At this point the patient's pressure rose to 100/70, pulse remained at 120 and respirations were controlled with intermittent positive pressure breathing. Intermittent tracheal-bronchial suction was maintained throughout this period.

At 7:15 p.m., Cedilanid 0.4 mgm and atropine 0.4 mgm were given intravenously.

At 7:35 p.m., the abdomen was closed and the general condition of the patient was somewhat improved. The level of the râles had receded to the lung bases, the patient's color was better and the endotracheal tube was removed.

Supportive therapy was continued postoperatively and by the next afternoon the condition of the patient was such that O_2 was discontinued. She had an uneventful recovery and was discharged on March 26, ten days after admission.

Comment.—The physical and emotional stresses of labor are well known causes of congestive failure in patients who have mitral valvular disease.

Both elements bear equal responsibility in this case and were perhaps aggravated by the failure of labor to end in a normal delivery.

As soon as the patient became aware of the fact that her course of labor was not going smoothly, her apprehension increased as did her pulse rate.

Tachycardia, in itself, in a mitral stenotic who is already digitalized can be responsible for the onset of cardiac failure.

The use of high spinal anesthesia in this case was considered to be of major benefit in the management of the patient.

Case 3.—On June 18, 1959, Mrs. I. M. M., a 43-year-old white gravida IV para III, was admitted to the Obstetric Division of The Grace Hospital for her fourth elective caesarean section. Her past medical history revealed injury to the pelvis and diaphragm resulting from an auto accident. As a consequence of this accident, she developed a traumatic contraction of her pelvis and a diaphragmatic hernia. She had a transthoracic repair of the diaphragmatic hernia in 1952 and made an uneventful recovery. Other than this, the patient was in generally good health.

On June 20, at 9:05 a.m., the patient was given a spinal anesthetic (Pontocaine 8 mgm, Dextrose 0.8 cc 10 per cent).

An anesthetic level to T-9 was achieved, and at 9:25 a.m., the operation was started. The preoperative blood pressure was 118/90, pulse 100. Methedrine 20 mgm intramuscularly had been administered at 8:45 a.m.

Preoperative laboratory studies showed: Urine, normal; RBC, 3.98 million/cmm.; Hematocrit, 39 volume per cent; Hemaglobulin, 12.6 gms.

Immediately following the administration of the anesthetic, the blood pressure fell to 40/0 and an intravenous drip of Neosynephrine, 10 mgm in 500 cc 5 per cent Dextrose/H_2O was begun. In addition to this, the patient was placed in 10° Trendelenburg position and the patient's legs were raised manually to the vertical position and held this way for approximately five minutes.

The pressure returned quickly to 140/90 and from this point on the blood pressure was titrated against the Neosynephrine drip. The operation proceeded smoothly and at 9:35 a.m., a living female infant in good condition was delivered.

At 11:00 a.m., concurrent with the skin closure, it was noted that there was a sudden appearance of fresh bleeding from the wound and at the same time the patient became hypotensive, the pressure dropping to 50/20 mm Hg. In addition to this, the respiration became very labored and wet sounding. Within a few minutes bubbly respiration was audible to everyone in the room. Pink frothy fluid was being coughed up and expectorated by the patient. Her color became very ashen and there was no capillary refill present. A diagnosis of acute pulmonary edema was made and treatment instituted consisting of immedite endotracheal intubation and intermittent positive pressure breathing with 100 per cent O_2, intravenous administration of Cedilanid 1.2 mgm, intravenous aminophylline 0.5 gm. and a change in patient's position to reverse Trendelenburg 20°.

The bleeding from the wound stopped but otherwise the patient's condition was grave. The hypotension was intractable, and could not be reversed with the Neosynephrine drip. The patient was sent to the post-anesthetic room and there treatment was continued. An electrocardiogram was taken in the post-anesthetic room and read as showing only sinus tachycardia and digitalis effect.

The patient continued to be in a critical condition exhibiting a picture of irreversible shock and cardiac failure. Despite intensive resuscitative therapy, consisting of intermittent positive pressure breathing, additional Cedilanid 0.2 mgm, Mercuhydrin 2 cc intravenously, aminophylline 0.5 gm., and an intravenous infusion of Levophed, the patient expired at 12:15 a.m., on June 22, 1959, 38 hours after surgery.

Autopsy Report Summary.—

Gross: (1) pulmonary edema severe; (2) acute passive congestion of all viscera.

Microscopic: Lung tissue exhibited a widespread intra-alveolar and interstitial edema. In addition, there was a marked engorgement of the entire vascular tree, especially the capillaries and veins. The bronchi were filled with edema fluid. The myocardium exhibited no microscopic pathologic condition.

Comment.—We are convinced that in this case there was no pre-existing disease of a serious nature present in this patient.

The picture of sudden unexplained bleeding from the wound, the severe irreversible shock, and the very sudden onset of severe pulmonary edema led us to conclude that this was a case of amniotic fluid embolism. The post-mortem examination failed to confirm the diagnosis. The lungs did not show the typical lesions of amniotic fluid embolism. However, not infrequently, the diagnosis can only be made on the basis of the clinical picture without the benefit of confirmatory tissue evidence.[6]

Case 4.—On October 19, 1960, Mrs. M. R., a 62-year-old white woman, was admitted to the Cardiovascular Division of The Grace Hospital for diagnosis and treatment of chronic leg ulcers, secondary to obliterative atherosclerosis of the aorta. There was a long history of hypertension and claudication, and in the previous five years the patient had had four episodes of coronary insufficiency, the last of which gave electrocardiographic evidence of myocardial infarction.

Evaluation of the patient revealed generalized arteriosclerosis, absent femoral pulses bilaterally, and hypertension. The blood pressure was 185/90, pulse 92, and respiration 18.

Laboratory studies showed: Urine, normal; RBC, 4.35 million/cmm.; Hematocrit, 36 vol. per cent; Hemoglubin, 14.5 gms; ECG, old posterolateral infarction, sinus rhythm.

On October 27, the patient was brought to surgery for exploration and possible aortic grafting. The patient was given a general anesthetic consisting of a Pentothal induction followed by N_2O-O_2, ether, and intermittent doses of a muscle relaxant, Flaxedil. In addition to this, the patient was placed on the Jefferson ventilator, and surgery began at 8:40 a.m.

The surgery consisted of an aortic endarectomy and an end-to-side aortofemoral "Y" heterograft. At the completion of the grafting procedure, it was found that the graft was occluded and thrombosed, so that it was necessary to repeat the entire procedure.

Up to this time the patient's course had been very smooth; she had received 2000 cc whole blood and the vital signs were stable and satisfactory.

At 3:55 p.m., after approximately seven hours of surgery and during the repeat grafting procedure, the patient suddenly became quite cyanotic, hypotensive and went into acute pulmonary edema. Resuscitative measures consisting of intermittent prositive pressure breathing with 100 per cent O_2, intravenous Cedilanid 1.2 mgm and intravenous atropine 0.6 mgm were instituted.

The surgery was completed but the patient's condition remained critical and there was no appreciable response to therapy. At 6:20 p.m. despite continued intensive therapy, the patient expired.

Autopsy Report Summary.—(1) old infarction of left lateral and posterior ventricular myocardium, (2) organizing thrombus in right coronary artery, (3) marked general atherosclerosis, (4) pulmonary edema and hyperemia.

Comment.—In this case, the basic problem is one of chronic coronary insufficiency and a previously damaged myocardium.

Analysis of the operative course fails to establish any one cause for the occurrence of acute pulmonary edema.

It is more reasonable to assume that the normal events that occurred during the aortic surgery, blood loss, aortic occlusion, multiple transfusions, etc.,[7,8] were more than enough to compromise the adequacy of this patient's coronary circulation and thus produce cardiac failure.

Altschule's Classification

Altschule has categorized the causes of acute pulmonary edema on a pathophysiologic basis.[9] Below is a modification of this classification.

ACUTE PULMONARY EDEMA

I. Increased transudation
   - A. Elevated capillary pressure in lungs
     1. Cardiac decompensation
        - (a) Mitral Stenosis, et cetera
        - (b) Hypoxia
     2. Venular constriction
        - (a) Neurogenic venoconstriction
        - (b) Histamine, anaphylaxis (amniotic fluid embolism)
   - B. Increased filtering area in the lungs
     1. Increased blood volume (over-transfusion)
     2. Redistribution of blood
        - (a) Peripheral vasoconstriction (Pressor amines)
   - C. Large blood flow in lungs
   - D. Increased capillary permeability
     1. Anoxia
     2. Histamine
     3. Toxins
   - E. Respiratory obstruction
     1. Bronchospasm Laryngospasm
     2. Problems of anesthetic technic (kinked endotracheal tube)

II. Decreased reabsorption
   - A. Impaired Lymphatic function
     1. Elevated systemic venous pressure

III. Increased total extracellular fluid volume
   - A. Excessive fluid and electrolyte therapy

When acute pulmonary edema occurs in anesthetized patients, whether the anesthesia be general or regional, there is an explanation for its occurrence.

As shown in the above classification, the causes can be many; hence, it is necessary to recognize this condition and then institute treatment as quickly as possible.

In making the diagnosis of acute pulmonary edema in the anesthetized but awake patient, the patient may have symptoms of a respiratory or cardiovascular origin. On the other hand, in the unconscious patient, one has to rely primarily on objective findings.

Below is a categorization of the findings one may observe in this situation:

A. *Respiratory Signs*

1. Wheezing—may be confused with bronchospasm—associated with an asthmatic attack or reflex bronchial reaction to stimulation under light anesthesia.
2. Wetness of respiratory sounds, râles, must be differentiated from tracheo-bronchial secretions that are essentially of an innocuous nature.
3. Appearance of fluid in the airway (mouth, pharynx, endotracheal tube), is usually frothy in character and is most often blood tinged or pinkish in color. The presence of this fluid may be confused with that of gastric regurgitation.
4. Cyanosis—a prominent finding; however, it may give way to a grayish pallor if cardiovascular collapse is severe.

B. *Cardiovascular Signs*

Under anesthesia, the following can occur with any one of a group of serious complications; myocardial infarction, cerebrovascular accident, transfusion reaction, et cetera. However, they are the common presenting findings in the entity of acute pulmonary edema as observed in this study.

1. Hypotension
2. Tachycardia
3. Poor capillary refill
4. Weak, thready pulse
5. Gallop rhythm
6. Cardiac arrhythmia
7. Neck vein distension

C. *Electrocardiogram*

Obtain as soon as possible—may indicate source of problem and possibly point to specific therapy as in a disorder of cardiac rhythm.

Treatment

Once the diagnosis is made, certain immediate steps are taken in establishing treatment:

1. If the patient is receiving a general anesthetic, it should be discontinued and attempts should be made to lighten the anesthetic.

2. Concurrent with step No. 1, institute administration of oxygen, 100 per cent at once.[10]

3. Intermittent positive pressure breathing[11] with endotracheal intubation if necessary. Intermittent positive pressure breathing is very important in the treatment of this condition. It was once thought to raise alveolar and tissue pressure in the lungs and thus promote reabsorption of alveolar and interstitial fluid. However, since the heart and great vessels are really more vitally exposed to this increased pressure, the major benefit may be from a decreased cardiac return. In reality the first effect of raised intrathoracic pressure due to intermittent positive pressure breathing is a decline in venous return to the right heart. The heart puts out less blood because of the lessened filling and pulmonary vascular changes are secondary.

4. Immediate intravenous digitalization if patient already not digitalized, or adequately digitalized.

5. Put patient in Fowler's position up to 45° if necessary. This will reduce circulating blood volume considerably as a result of peripheral pooling.[12]

6. Consider either high spinal or epidural anesthesia.[13] Both of these technics will produce significant sympathetic blockade. This will result in decreased total peripheral resistance, reduced circulating blood volume (up to 50 per cent) and may improve cardiac output. It must be stressed that major sympathetic blockade may be contra-indicated in patients with coronary or cerebrovascular insufficiency.

7. Consider venesection—may be done quickly through operative site if surgeon has easy access to vena cava, or other large vessel.

8. Reduce or discontinue all intravenous fluids patient is receiving.

9. Intravenous atropine may alleviate bronchospasm, may reduce secretory activity in tracheobronchial tree and may reduce noxious vagal reflex action producing bronchospasm, laryngospasm, et cetera.

10. Consider use of ganglionic blocking agents,[14,15] Hexamethomium and Arfonad. Both have essentially the same action as high spinal anesthesia; redistribution of blood volume so as to lower venous and arterial pressures and increase vital capacity. The same caution concerning sympatholysis exists here as in step No. 7.

11. Morphine will depress respiration centrally and may have action locally on Hering-Breuer reflex arcs.

12. Aminophylline for its broncholytic and coronary dilatory effects.

13. Repeated tracheo-bronchial aspiration as often as necessary and as conditions allow.

14. Nor-epinephrine for persistent hypotension, if other factors improve and there is no contra-indication to its use.

Summary

Four cases of acute pulmonary edema occurring as a complication of anesthesia and surgery are reported.

Despite early recognition and institution of intensive therapy, two of the patients failed to survive this complication.

The etiology, diagnosis, and treatment of this condition are briefly reviewed.

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Joint Blood Council Completes Work, Dissolves

Having successfully achieved its major goal of coordination the Joint Blood Council, Inc., is being dissolved.

Within the past seven years a national peacetime blood program of major significance has been worked out under the leadership of the Council. The impetus created by the Joint Blood Council's Member Institutions in this venture assures that blood and its derivatives will be readily available in the future for all who need them.

In fact, the work of the Council has been carried out so well that coordination of the existing blood programs can now be realized without the existence of a separate corporation. Reports and policies distributed by the organization have been widely accepted. Plans are underway for each of the five component institutions to continue liaison of blood interests through advisory representatives who will meet occasionally.

Abdominal Trauma

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IN THE 19th century, surgical care of penetrating abdominal wounds consisted of probing the tract for diagnostic purposes, or attempting to locate any foreign body present, especially a bullet. In 1882, J. Marian Sims became a leader in recommending exploration of the abdominal cavity in penetrating abdominal wounds. This early attitude, however, fell into disrepute and was not revived as a policy until well into World War I.

The British, in the Boer War of 1899, began treating penetrating wounds of the abdomen by exploration but later returned to non-operative management when the death rate was higher in those explored surgically than those treated by non-exploratory methods. The non-operative management of penetrating abdominal wounds was further supported from data at Charity Hospital from 1890 to 1900. The mortality was 68.9 per cent in 122 cases treated by laparotomy and 53.6 per cent in 100 cases of conservative management. Thus, it developed that the non-operative management of penetrating abdominal wounds was the treatment of choice at the beginning of World War I; but it was soon noted that the mortality rate was excessive. This was felt to be due to the fact that the missiles causing the injuries were larger and of higher velocity in contrast with the small bore missiles of relatively low velocity used to World War I. This high mortality rate of 80 per cent led to a revival of the early laparotomy type of management of these injuries, and data were presented showing that this mode of treatment reduced the mortality from 80 per cent to 53.5 per cent. Others reported mortalities as low as 37.7 per cent at the end of World War I.

The refinement of blood transfusion with the development of blood banks; the prevention of distention with Levine tubes and Wangensteen suction; better knowledge of fluid and electrolytes; Penicillin and sulfa drugs, resulted in a mortality rate drop to 25 per cent for abdominal penetrating wounds in World War II. The further improvement of the above factors, plus increased speed of evacuation and broad spectrum antibiotics dropped the mortality rate to 12 per cent in the Korean War.[1]

Clinical Data

Peritonitis from abdominal trauma was studied by reviewing 104 cases of penetrating wounds of the abdomen, plus blunt trauma which resulted in proven perforation of the bowel. The period was 1951 through 1960. The cases were from Hurley Hospital, Flint, Michigan.

Cases in which there was only insignificant abdominal trauma or superficial abdominal wounds known not to have penetrated the peritoneum are not included in this series.

Male patients outnumbered female patients 88 to 16, a ratio of 5 to 1. This is a higher incidence of female injury as contrasted with other series, which vary from 6.5 male to 1 female to 7 male to 1 female.[2,3] The age and distribution of cases were as follows: years 0 to 10—2 cases; years 10 to 20—15 cases; years 20 to 30—36 cases; years 30 to 40—28 cases; years 40 to 60—17 cases; years 60 plus—2 cases. It is evident from these data that the 20 to 40 year age group accounts for the major share of the injuries (65 per cent). The 0 to 20 age group accounts for 16 per cent and above age 40 for 18 per cent. This age spread correlates well with other series.[3]

Modality of Injury; Site of Bowel Injury; Associated Injuries

Examination of the mode of trauma in this series reveals stab wounds to be most frequent, 57 (56 per cent), two of which were reported to have fallen on glass. Bullet wounds were 28 (27 per cent). Shotgun wounds were 10 (9 per cent). The mode of injury in the blunt trauma with perforation of the bowel were automobile 11 (10 per cent); blunt blows as from fist or kick 4, a snapped flying cable 1, airplane 1, tornado 2.

The injury by a snapped cable resulted when the individual was struck while watching the load being pulled. The free end flew through the air, striking the patient across the abdomen resulting in perforation of mesenteric vessels and bowel. In another case, a factory worker was struck on the forehead by a

swinging boom fracturing his frontal bone. This resulted in a fall onto a table on which a vise held a pipe in a perpendicular fashion. The pipe went through the wing of the iliac bone and then into the abdominal

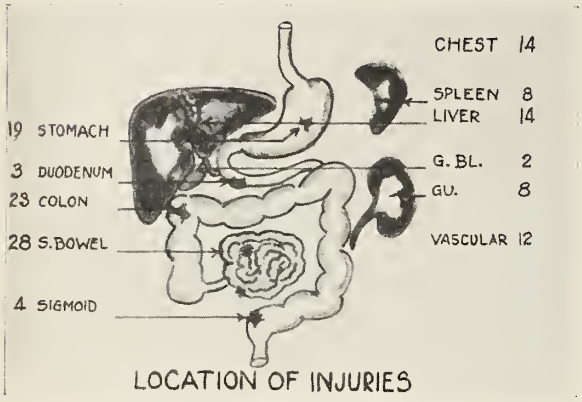


Fig. 1.

cavity, tearing multiple loops of large and small bowel as the patient spun on the pipe falling to the floor.

Figure 1 indicates the sites of injury to viscera. The injuries to the hollow viscera were stomach 19, duodenum 2, small bowel 40, large bowel 27, gallbladder 2. This indicates the small bowel to be the most frequently injured, with large bowel next and, finally, the stomach.

TABLE I.

Viscera Injured	Seeley Hospital	Hurley Hospital
Small bowel	34.2%	39%
Colon	23%	26%
Stomach	13.8%	18%
Vascular	9%	11%
Gallbladder	8%	2%
Liver	3.2%	13%
Kidney	5.9%	7%
Spleen	3.3%	7%
Pancreas		2.5%

The solid viscera injured were: liver 14, genitourinary 8, spleen 8, pancreas 2. Data presented here for both hollow viscera and solid visceral injuries parallel remarkably the statistics of the 152 penetrating wounds of the abdomen reviewed by Singleton and Julian from the Seeley Hospital, Galveston, Texas. Table I compares the findings of the Seeley Hospital series with those of Hurley Hospital.[2]

The increase in splenic injuries in the Hurley Hospital series was felt to be due to the fact that blunt wounds to the abdomen which resulted in perforation were included.

Diagnosis

The diagnosis, surgical judgment and treatment were varied. These cases were in a city hospital with an open staff and were taken care of by a number of physicians with variation in management. The treatment varied from conservative care to early exploration of the abdomen with mere suspicion of penetration or perforation.

X-ray examination was done in a department well aware of the problems of penetrating wounds of the abdomen. Multiple x-ray exposures with various position changes of the patient were obtained. In 45 cases (45 per cent), the radiographs were positive, that is, exhibited bullet paths, ileus, blood or fluid in the

TABLE II.

Number Units	Cases
No blood	50 (49%)
1 unit	11 (10%)
2 units	7 (6%)
3 units	13 (12%)
4-5 units	5 (4%)
6-7 units	7 (6%)
8 plus units	6 (5%)

peritoneal cavity, or free air. In 37 cases (36 per cent), radiographs were negative where intraperitoneal injury was later proven of sufficient degree that one would have suspected radiographs to be positive or a help in diagnosis. In only five cases was free air demonstrated, and this exhibited no correlation with the severity or number of bowel perforations. One small perforation exhibited as much air as a case in which there were multiple perforations. In 14 cases of

TABLE III. COMPLICATION AND ANTIBIOTIC LEVELS

Complications	Low	Moderate	High
	Penicillin 600,000 or Less	Penicillin Plus Another Antibiotic	Massive Dosages and Combination
Pneumonitis	11	2	3
Peritonitis diffuse	2	0	0
Ileus	6	0	1
Wound separation	1	1	0
Febrile course over 3 days	11	1	3
Thrombophlebitis emboli	4	2	1
Wound abscess	9	1	1
Intraperitoneal abscess	7	0	2
No complications	19	1	8
Complication totals	51	9	11
Total treated	75	8	19

multiple perforations and extensive intra-abdominal injuries, x-rays were of no value, that is, in 13 per cent from the extent of the surgical findings, radiological diagnostic findings ought to have been positive, but were not. Lower quadrant thoracentesis was of definite

value in only three cases. The remaining positive peritoneal taps were suspected or known by the nature of the injury and clinical findings. In three cases, taps were negative, while at surgery there was massive blood or fecal spill.

Clinical judgment as to the rigidity of the abdomen, evidence of blood loss, or progressive evidence of peritonitis were the major factors in determining the need for exploration. It is our opinion that a high clinical index of suspicion is of more value than any procedure in diagnosis.

TABLE IV. TIME ELAPSE TILL SURGERY FROM EMERGENCY DEPARTMENT

Time	Number Cases
Less than 1 hour	22
Less than 2 hours	32
Less than 3 hours	17
Less than 5 hours	10
Less than 8 hours	8
Less than 12 hours	1
Over 12 hours	4

Treatment

Twenty-five cases (24 per cent) were explored needlessly. That is, at surgery there was no intra-abdominal trauma which would have not healed without exploration. In this group, there were no fatalities and only two wound infections. In 76 cases (75 per cent), there were positive findings at laparotomy requiring surgical correction. These were: simple closure of the bowel 41 (40 per cent); bowel resection 13 (12 per cent); colostomy 6 (5 per cent); cecostomy 1. The associated surgery performed was splenectomy 8, vascular repair 4, liver repair 4, thoracotomy 4, tracheostomy 3, nephrectomy 2, cholecystectomy 1, cholecystostomy 1, orchiectomy 1.

Ten patients were treated with expectant management and observed for many days. Negligible cases are not included with these. The ten patients treated with expectant management were of severe degree and required multiple days' observation. Four cases were considered late explorations in that observation was followed until either positive x-ray findings or a deteriorating clinical picture developed.

The blood requirements are summarized in Table II. In the cases requiring 8 or more units of blood, the following number of units were required: 31, 21, 10, 10, 8, 8. The mean blood requirement was 2.1 units per case, comparing closely with the 1.86 units required in the review of Singleton and Julian.[2]

Penicillin, sulfa, streptomycin and broad spectrum antibiotics were used in varying dosages. A very close correlation in the vigor of antibiotic therapy and complication was found and is presented in Table III.

The time interval from admission to the emergency department until surgery is summarized in Table IV: 90 per cent were operated upon before eight hours had elapsed and 75 per cent under three hours. Analyses of the four cases in which delays were over twelve hours, revealed the following causes: (1) physician was not available—13 hours, (2) missed diagnoses (a) small bowel perforation—22 hours, (b) ruptured third portion of duodenum—48 hours, (3) severe multiple injuries masked an intra-abdominal injury—24 hours. Early exploration aided greatly in decreasing complications and survival.

TABLE V.

Time	Number Cases
1 day	7
1 to 3 days	7
4 to 6 days	10
7 to 10 days	26
11 to 15 days	22
16 to 30 days	21
31 to 50 days	9
85 days	1

TABLE VI.

Pneumonitis	16 (15%)
Prolonged febrile course over 3 days	14 (13%)
Wound abscesses	10 (9%)
Intraperitoneal abscesses	9 (8%)
Prolonged ileus	7 (6%)
Wound separation	2 (1%)
Evisceration	1

Course and Complications

The average hospital stay was 11.5 days, and Table V indicates the spread of days.

Table VI states the postoperative complications.

In 28 cases, there were no complications. The very high incidence of pneumonitis has been observed by other groups, and we believe it is of sufficient significance to warrant special comment. This represents the need for early and vigorous preventative tracheobronchial toilet and tracheostomy at the time one thinks of it.

The total number of deaths was 14 (13 per cent). Seven (50 per cent) were within 24 hours: cardiac arrest—1, uncontrolled bleeding or unsuspected blood loss—5, massive and multiple injuries—1. The patients surviving over 24 hours and their causes of death are reviewed in Table VII.

Discussion

It is evident that the causes of death are: (1) blood loss and insufficient replacement of blood, (2) peritonitis and septicemia, (3) chest complications. The data present the fact that more complications developed

TABLE VII.

Case No.	Etiology	Days	Cause of Death
1	Stab wound	2	Undiagnosed hemorrhage, a preventable death with proper intervention
2	Shotgun wound	3	Prolonged shock, massive contamination and peritonitis, insufficient blood replacement and antibiotic therapy
3	Bullet wound	4	Injury to pelvic vessel with secondary pulmonary embolus
4	Shotgun wound	7	Gangrene of the cecum, gangrene of the right leg, severe blood loss. Urinary shutdown.
5	Auto accident	9	Severe blood loss. Pneumonia. Septicemia with multiple abscesses of lungs, liver, pulmonary emboli
6	Auto accident	11	Missed diagnosis of ruptured duodenum from blunt trauma with late exploration and low antibiotic therapy with resultant peritonitis and pneumonia.
7	Gunshot wound	11	Pneumonia. Failure to control hemorrhage and low antibiotic therapy.

in patients treated with (1) late exploration, (2) insufficient antibiotic therapy, (3) inadequate blood replacement, and (4) poor chest toilet.

There were no deaths and only two minor complications in cases which were negatively explored. In the cases which were explored late, the incidence of infection and death was high. In those which were not explored, the penalty for non-exploration and late exploration *is so great that the edict has been supported of "Look and see" instead of "Wait and see."*

Half treatment with blood, half treatment with antibiotics, and expectant management will not improve the survival rate. Early exploration, a high index of clinical suspicion, massive antibiotic therapy and vigorous blood replacement are factors which will reduce the mortality.

The incidence of pulmonary complications (15 per cent) as noted was felt to be important because of a similar percentage of chest complications cited by Singleton and Julian. This was the most common complication in this series. This has led to a program of early respiratory tract attention before complications arise with tracheostomy being performed early. Tracheostomy is invariably done in the cases where both severe abdominal and chest injuries are incurred.

There is definite room for improvement in the care of the abdominal trauma patient. Complications and deaths could be prevented and a mortality rate of less than 10 per cent is well within the realm of possibility. The factors which will improve the care of the abdominal trauma case if more vigorously pursued are: (1) adequate blood replacement, (2) good decompression and fluid electrolyte replacement, (3) early surgery, (4) massive antibiotic therapy, and (5) chest care.

Summary

1. A review of 104 cases of peritoneal soiling from penetrating wounds and blunt blows is made as to their etiology, diagnosis, surgical therapy, course and complications.

2. A review of the surgery performed and the complications incurred are presented with their treatment and course in order to make recommendations for better care of patients receiving peritoneal soiling from trauma.

3. The conclusion is that there is no room for procrastination or halfway measures in the care of these patients.

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Science Interest at Peak in Seventh Grade

Apparently seventh grade offers facts, questions, and experiences that stir many 12-year-olds' interest in science. Perhaps seventh grade teachers generate some special momentum of their own. Many finalists at National Science Fairs credit their teachers for stimulating interest in science during the seventh grade. A study of their diversity of interests also makes it apparent that the potential scientists are exploring and enjoying other facets of the world they live in. (Shirley Moore: "Science Interest Peak at Age 12," Science News Letter, September 15, 1962.)

Emotional Aspects of Obstetrics And Gynecology

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SINCE THE TURN of the century, the esteem in which physicians are held has declined. For the most part, we have been trained to diagnose and treat disease rather than people who are ill. Our understanding of the special problems of women has been particularly lacking. The unravelling of woman's complex personality has been left to poets, playwrights, and philosophers. The doctor-patient relationship has not made progress compatible with our other scientific achievements.

During the past decade, there has developed an increasing awareness of the importance of emotional factors in disease. Certainly, there is nothing more stimulating to feelings than sexuality and pregnancy, the very essence of obstetrics and gynecology.

An evaluation of a woman's personality allows us to make more accurate diagnoses and to direct our therapeutic efforts in a more effective way. The normal woman has developed a personality which consists of a core of feminine narcissism, masochism and passivity. Frequently, these terms are misunderstood. By feminine narcissism, we mean true self love. Masochism is an even more confusing term. It does not mean that a woman enjoys pain for the pleasure of the pain itself. Feminine masochism means that a woman has the ability to put up with an unpleasant situation for a goal, which is proportionate to the discomfort she endures. For example, the uncomfortable times in the prenatal period and in labor are tolerated by a woman in order to gain the fulfillment of giving birth to a child. Feminine passiveness does not imply a lack of activity but does signify that woman is receptive rather than aggressive. This feminine personality core enables the normal woman to meet her life situations in a way which fulfills her needs.

Many variations of the feminine core may be seen. All the town sympathizes with poor Nancy, whose alcoholic husband, John, on pay day leaves half of his earnings in the local tavern, then returns home to kick the cat, reject his children, and beat his wife. But, when John is run over by an automobile, who does Nancy choose for a second husband? She, of course, marries Oscar, who was John's drinking companion and psychologic double. The woman who repeatedly becomes pregnant out of wedlock has a similar feminine core. Incidentally, this latter type represents about 60 per cent of the ward maternity patients at Temple University Medical Center. Her self love is lacking and the masochism of this degree is pathologic. In this way, she destroys herself.

Many woman will be seen who fall into the so-called Hollywood type. Their core has too great a degree of narcissism and too little of masochism. These patients find it difficult to accept the disfiguration of pregnancy and the threat of labor. When these women become pregnant, they frequently are delivered by cesarean section or have dysfunctional labors. They are unable to form lasting love relationships and therefore may marry and divorce repeatedly.

Pregnancy affords a woman a wonderful opportunity to solve many emotional problems, and to reach a more mature level of development. We are all aware that the anatomy and physiology of the female pelvis is directed toward reproduction. We must also realize that a woman's emotional maturation is likewise orientated. We usually refer to the prenatal course as being divided into three trimesters. Let us examine the feelings a woman is likely to experience through these periods.

In the first trimester, she will become more self-centered. This is to protect her ego from the fear of her own masochism, as she feels that the pregnancy is part of herself. At this time, she rarely makes plans

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for the baby, but most of her time is spent in caring for her physical needs. Most women will have mixed feelings about their pregnancy, as they recognize the threat it provides to their ego. Our society does not accept rejection of this blessed event, so if a woman feels inadequate, the unconscious is called upon to solve the dilemma. The unconscious, it must be remembered, is not too well-informed, and represents the little girl in her.

Let us look at pregnancy as the little girl may see it. She will ask when Aunt Mary has visited, "Mommy, why is her stomach so big?" The answer will signify that Aunt Mary is going to have a baby. Two days later, playing with her dolly, Jane wonders how the baby got there. Well, to a little girl, the stomach runs from the xyphoid to the pubic bone. Obviously, you get things into the stomach by eating them. They are rejected by vomiting. Explaining this to a patient with hyperemesis would throw her into a panic because you are hitting at what she can't handle on a conscious level. She would retort that you are crazy, which is exactly what the unconscious expresses when it breaks past the ego. This type of patient usually requires hospitalization, intravenous fluids, and maternal-like care until transference is present, then in this kind of benevolent atmosphere she will feel comfortable in expressing her hidden feelings. Hypertylism may also be treated in a similar manner. Previously, these patients were aborted because of a toxic condition. More recently, they have been kept in darkened rooms and given injections with number 16 gauge needles. This helped in that the punishment released some of their guilt, but certainly this does not represent the best way to aid a child.

Abortion is not infrequent and usually spontaneously occurs in the first trimester. Since a woman feels the fetus is part of herself and loses it, the feeling is similar to our losing a limb. I think we would be quite angry about it, and so is she. If this emotion is coupled with guilt stemming from rejections of the pregnancy, we see a depressed patient. Crying is a good way for such patients to express their anger; we can help in relieving their guilt. The latter can be recognized by the patient stating, "I shouldn't have hung the curtains, or driven the car, or had intercourse." In general, then, the patient should be allowed to be remorseful for a reasonable length of time. She should not be allowed to blame herself for the loss.

Habitual abortions, on the other hand, may be from an incompetent cervical os, diabetes, abnormal germplasm or emotional problems. Doctor Mann, in a very thorough study, has demonstrated the dynamics behind this problem. I have delivered a woman successfully of three children after she had five successive abortions with only psychotherapy as my therapeutic tool. She had been unable to separate herself from her mother. You know that a little girl just can't have a real live baby.

I have another patient, now pregnant, who previously aborted on three successive occasions on the same day she had her first pregnancy removed in Japan. This is what Doctor Mann calls anniversary aborting, which is driven by guilt. Other women present less serious problems in the first trimester. Mild degrees of anxiety, or depression, are frequently seen. There is no greater proof that a woman has had a sexual experience than pregnancy. By being permissive, the physician will be of greater help than he would be if he just ordered dextramphetame or Stellazine.

During the second trimester, the pregnant woman feels that the fetus is separate from herself. This is initiated on perception of fetal movement. I believe it is also beneficial to allow her to hear the fetal heart-tones because this strengthens the normal emotional separation. If the woman does not give up the idea of pregnancy as a part of herself, there will be greater anger at the time of delivery, when there is a physical separation. It is during this middle period that the mother-to-be acts out her feelings by knitting booties and planning for the baby in many other ways.

During the third trimester, a feeling "to get it over with" develops. Most women will ask, "Do you think I will come early, Doctor?" This, of course, is a wish. Occasionally, the patient will complain of insomnia. Her physical contour may be the more obvious cause, but on closer examination we may find dreams of death. Since the darkness of night is associated with loneliness and death, this patient may be able to sleep easily during the day.

Labor brings the patient face to face with the reality of having the baby. Here the fear of injury, contraction and death are again brought forth. On entering the hospital, her contractions may stop because of Seely's fear and flight reaction. The effect of adrenalin on the uterine muscle tone is one of relaxation. The appearance of her physician and the transference of her fears, coupled with the judicious use of medication, in most cases will find her labor being established again in a normal way.

If the patient develops a poor mechanism of labor, she may have a deep physiological problem. Doctor Watson has reported on 25 patients, whose labor was allowed to run 24 hours or more.

These patients can frequently be spotted in the first trimester; as the "very good patient," they never complain or ask any questions. With the appropriate psychotherapy, we believe that many such poor mechanisms can be avoided.

At full dilatation of the cervix, there is a shift of the ego and the patient may report that she cannot go on. She seems to lose most of her control; here, with the proper support she is able to continue through the second stage of labor and may mature greatly from the experience.

Many reactions will be noted from the new mother toward her child. Many of these will be related to her own feelings as an infant in relation to her own mother. Probably at no time can a better preventive mental health program be initiated than in helping a young mother in her relationship with her baby.

Postpartum depression, or blues, may be noted on the third day after delivery. The more anger and guilt, the greater the depression. This may go on to a psychosis which endangers not only the mother's life through suicide, but, also the life of the infant. Recognizing the severity of the problem and seeking adequate psychiatric aid will avert a disaster. The patients who develop a postpartum psychosis usually have a good prognosis.

There is an accumulation of evidence in the literature of the somatic response, through either the autonomic nervous system or endocrine glands with hypothalamic disturbance. Benedek, for example, was able to predict the cytological response of women from the psychological material the patient was working through. Her study showed conclusively the influence of the emotions on the pituitary-ovarian-uterine axis. It is also known that there is a reverse reaction present. Progesterone, at least, has a tranquilizing effect on this primitive center. A woman, for example, is more likely to murder just before her period. Premenstrual tension is basically related to the anxiety that develops over some of the feelings in the unconscious when progesterone is decreased.

Symptoms develop in the presence of a conflict which the patient cannot solve. This motivates either the autonomic nervous system or the endocrine glands through the hypothalamus. The patient may consult her physician because of vaginal discharge. A saline suspension may reveal tricomonads and he has the diagnosis; but is it a complete one? The prescribing of a vaginal cream is not usually sufficient. These parasites may be found in many women without symptoms. It is during a period of stress, usually associated with sexual tension, that they become symtomatic. If the physician is a warm person and demonstrates a genuine interest in the patient, she will ordinarily be able to express this to him, and in that way he should be able to find a reasonable solution to her problem.

Menstruation is frequently referred to as "the curse," "being unwell," or "falling off the roof"; all wonderful things to have happen to you. Our modern-day mother, realizing the importance of menstruation, goes out and purchases a book on feminine hygiene for her daughter to read. This still implies, in a more sophisticated way, that there is something not very nice about the whole thing, and that we just don't talk about it. No wonder we find dysmenorrhea without endometriosis or hematometria. Proper management requires an understanding of these girls' fancies of what is happening to them. They do not ordinarily need cervical dilatations, pessaries or other operative procedures.

Amenorrhea as in pseudocyesis also stems from an emotional conflict, rather than from pituitary or ovarian failure. The same may be said of some patients with irregular bleeding. Doctor Hyman has demonstrated, even in postmenopausal women, that separation from a significant male figure, as a father or husband, either through death or divorce, may produce vaginal bleeding, as can carcinoma of the endometrium.

The degree of enjoyment in coitus should be noted, for this more than frequency is the better yardstick in attempting to ascertain the degree of psychosexual development. Dyspaerunia and frigidity may be concealed symptoms, or today are more frequently openly expressed to the physician. It must be remembered that these are but symptoms of an underlying personality problem and are not a disease entity in themselves. A few years ago, physicians were treating these complaints with hormones. The more superficial problems—fear of pregnancy, living with parents, et cetera —can be solved by any physician who is interested. The deeper problems should be referred to a psychiatrist.

The infertile couple deserves special consideration. The inability to conceive has many organic etiological factors. Not infrequently emotional problems may be associated with them or may be the only cause. For example, in the woman who becomes pregnant after dilatation and curettage, what is the therapeutic effect of the procedure other than for diagnosis? Certainly, this woman needs additional emotional help during her

prenatal period, or she is likely to develop a severe postpartum depression or psychosis.

I would digress for a moment to tell about a patient who came to our infertility clinic complaining of the inability to conceive. During the next three months, her husband was examined. She had PBI and blood work-up and kept temperature charts. At this time, it was noted by a senior student that she had been using a diaphragm during intercourse. One of our energetic young residents overlooked this when he found bilateral tubal occlusion after a hysterogram. He very properly explained to the patient that she had only a 20 per cent chance in having a successful tubal plastic operation performed. After consultation with her husband, she asked to have the operation. Four months later, she returned to her surgeon, angrily inquiring why she had to be the one out of five to be successful. Obviously, this woman did not want to be pregnant as she demonstrated in her prenatal course. She also refused to look at her baby at delivery. She was attempting to get a secondary gain in going through this study and surgery; namely, the love and approval of her husband.

Any operative procedure has a symbolic meaning to the patient. This is especially true of surgery performed upon the pelvis. Our Negro patients believe that their nature (libido) is located in the uterus. The Caucasian woman, on the other hand, is more likely to think her sexuality resides in her ovaries. Thus destructive pelvic procedures may leave the patient with a feeling of a loss of at least a part of their femininity. One must elicit these feelings before surgery and correct them; otherwise, there will be a great number of patients developing postoperative frigidity and a great many other complaints. In a recent study, we found a frequent incidence of impotence in husbands after their wives had hysterectomies. Another frequent finding after hysterectomy is depression. This reaction is similar to any other depression and is motivated by the unexpressed anger over the loss of a genital organ. Comprehensive care of these patients, therefore, goes much further than doing a good technical job.

The menopausal woman is seen frequently by physicians. Her vasomotor response should be treated with estrogens, which may also protect her from developing osteomalacia and coronary heart disease. The many other symptoms, of which she complains, may be coming from a feeling of inadequacy or fear of death. She may be helped by being shown that she is needed by many people, even though she can no longer reproduce. Furthermore, it may be pointed out that through healthy identification she can enjoy the having and raising of her daughters' children and those of her daughters-in-law. Obviously, to do this will take a great deal of skill and understanding on her part as well as on the part of the younger generation.

Summary

Personality should be evaluated in every patient. This may be done rather quickly and usually accurately, with some experience, by observing a woman's attitude, dress, voice, and by listening with a third ear. This may be done while taking the history and doing a physical examination. A patient's problem may be mostly organic or emotional, but most likely it will be a combination of both. Neither diagnosis is made by the exclusion of the other, but a total impression is obtained. In this way, the real problems may be more easily ascertained, useless medication will be avoided, and needless surgery is less likely to be performed. Finally, a happier and more productive woman will be returned to her environment, and the physician will be rewarded with a job well done.

Danger Signals

Infants and children with cystic fibrosis have markedly elevated sodium and chloride levels. This abnormality of function can be demonstrated in the sweat of approximately 98 per cent of patients. It is not acquired as it may be detected as early as one day of age. "The moist hands and soles in the patient with cystic fibrosis . . . have not received sufficient attention in the description of the clinical features of cystic fibrosis," reports Dr. Harry Schwachman of Boston. Other observations included: (1) excessive and spontaneous sweating from other areas of the body, especially in infants; (2) mothers' comments regarding the salty taste of baby when kissed; (3) the formation of salt crystals in the scalp and along the hair line in some patients; and (4) the salt craving, or "habit" of salting foods heavily or showing a preference for salty foods and drinks. — *Pediatrics*, August, 1962.

Conjunctivitis

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THE PURPOSE of this paper is to attempt to classify and simplify the various causes, signs, and symptoms of a rather broad portion of ophthalmology, known as conjunctivitis. Conjunctivitis is a rather broad term involving an ocular response to many different conditions, both systemic and local and as such, often becomes a rather confusing source of perplexity in the minds of general practitioners (and specialists). The author spent four years in general practice and recalls that during that time he was inclined to say "Conjunctivitis is conjunctivitis. I shall prescribe an ointment or drop and if it doesn't heal I shall refer it to a specialist." This is all well and good. However, with a little more knowledge, referrals are often unnecessary, and the generalist can achieve most gratifying results without referrals. It is true with conjunctivitis, as it is true with other diseases, that more often than not if the etiology is known, the treatment can be initiated and successful results can be anticipated.

Follicular Conjunctivitis

Follicular conjunctivitis is the name given to the first condition to be discussed. This type of conjunctivitis is divided into three main types: acute, chronic, and toxic or allergic. Follicles may be present on normal conjunctiva and may be so numerous in children as to be called folliculosis. This is usually part of a general adenoid hypertrophy involving the throat and nasopharynx, rather than a distinct infectious entity. Sometimes a bacterial infection is superimposed, in which case the infection will clear on therapy while the underlying folliculosis will remain unchanged.

The acute follicular conjunctivitis is divided into three main groups which are epidemic keratoconjunctivitis, acute follicular conjunctivitis, and adult inclusion conjunctivitis. These are thought to be of virus etiology. The epidemic keratoconjunctivitis has great initial severity with edema of the eye lids, transient pseudomembrane and membranes, scanty secretion which is composed almost entirely of mononuclear cells, which differentiates this disease from the bacterial type of conjunctivitis. An enlargement of the preauricular, and occasionally the submaxillary and submental lymph nodes, is characteristic.

The acute follicular conjunctivitis of Beal occurs in mildly epidemic forms, particularly in the summer. This has an acute onset with the follicles developing rapidly, mostly in the conjunctiva of the lower lid and fornix, and usually sparing the upper tarsal conjunctiva. The cornea never shows any infiltration. There is nearly always a slight swelling of the preauricular nodes. The secretion is scanty and made up almost entirely of mononuclear cells. The etiology is not definitely established; however, it is presumed to be caused by a virus.

Adult inclusion conjunctivitis shows a more copious conjunctival exudate and contains a predominance of polymorphonuclear leukocytes, at least in the early stages of the disease. This is also thought to be a virus infection and thought to be of genitourinary origin. This has also been known as swimming pool conjunctivitis because of its transmission in swimming pools and small artificial lakes.

Chronic follicular conjunctivitis differs from the acute type in that its course is mild and chronic. The cornea is never involved and there is no preauricular adenopathy. This disease may run a chronic course and take from two to three years to heal. This, too, is thought to be caused by a virus and is a disease common in institutions, particularly orphan homes. It is thought that close contact and poor hygienic conditions are predisposing factors.

Toxic follicular conjunctivitis is also thought to be allergic in nature.

Parinaud's Oculoglandular Conjunctivitis

The next broad heading of conjunctivitis to be discussed will be Parinaud's oculoglandular conjunctivitis. This disease may be caused by a variety of etiologic agents. It is a granulomatous condition and any infectious agents producing granulomas may cause the disease. These agents would include tuberculosis, leptothricosis, syphilis, tularemia, fungus disease, and lymphogranuloma venereum. The lymphogranuloma

type produces edema of the eyelid due to lymph vessel blockage, and the type due to tuberculosis is characterized typically by isolated conjunctival ulcers, as opposed to the multiple granulomas and ulcers of conjunctival tularemia. There is usually swelling and eventual suppuration of the regional lymph nodes and is often accompanied by fever. The disease is not very common and, should it be seen, its picture is usually alarming enough to prompt early referral.

Phlyctenular Conjunctivitis

Phlyctenular conjunctivitis is characterized by small phlyctenules near the limbus or at the limbus. They may also appear on the cornea, ulcerate and cause corneal vascularity. The phlyctenule is a small reddish elevated lesion which microscopically appears as a dense focal infiltration composed mostly of lymphocytes. There is always an area of conjunctival hyperemia around these phlyctenules. The phlyctenules are usually multiple and, characteristically, there is an intense photophobia. These phlyctenules are sometimes an associated finding in patients who have recovered from active tuberculosis. Secondary bacterial blepharitis is common in coexistence. This can be a serious disease even sometimes perforating the cornea, and when the cornea is involved, there is almost always some visual loss due to corneal scarring. This is thought to be caused by a bacterial allergy, either to the tuberculoprotein or other bacterial substances. In the past it was seen in undernourished children.

Keratoconjunctivitis Sicca

Keratoconjunctivitis sicca is also known as Sjogren's syndrome. This is characterized by dryness of the skin and of mucous membranes, as well as synovial membranes, due it is thought, to some glandular dysfunction. Typical cases show these generalized symptoms, however quite often there are only ocular manifestations. The ocular manifestations occur because of a deficiency, or total lack, of lacrimal secretion. The cause is not understood; however, it is seen almost exclusively in women over forty and particularly in those suffering from arthritis deformans. It is rare in males and equally rare in young adults. This disease is characterized by hyperemia of the conjunctiva and an irritation which seems out of all proportion to any inflammatory signs. The cornea may show punctate epithelial lesions more prominent in the lower half and, in severe cases, actual filament formation. This condition can be diagnosed by a measurement of the rate of tear formation known as the Schirmer test.

Purulent Conjunctivitis

Hyperacute or purulent conjunctivitis shows intense inflammatory signs with copius purulent exudate. Gonococcus is one of the principal causes of this disease, however, meningococcus and Koch-Weeks may also be responsible. The gonococcal conjunctivitis is one of the most dangerous diseases of the eye and still a major cause of blindness in the middle east. It is usually the result of contamination from genito-urinary gonorrhea. The incubation period varies from about two to five days. The conjunctiva of the fornices is thrown into great folds and there is an abundant discharge, at first serous, then yellow pus. There is intense chemosis of the bulbar conjunctiva as well as swelling of the eyelids. Corneal ulceration usually develops and the lesion tends to be central. Meningococcus conjunctivitis may also be confused with gonococcal infection, however the meningococcal form is usually a little milder. General complications such as meningococcemia or meningitis may become a part of this disease.

Vernal Conjunctivitis

Vernal conjunctivitis occurs mostly in children and adolescents. This is almost certainly due to an allergic disorder, and significant sensitivities are usually found in the family histories. There are two main types of vernal conjunctivitis, the palpebral and the limbal, however, both may occur simultaneously. Giant papillae having the appearance of cobble stones in the upper tarsal conjunctiva are common in the palpebral type. In severe cases the lower palpebral conjunctiva may also be involved. The conjunctiva has a typical milky haze with a mucoid stringy secretion. These stringy secretions may, for the most part, be pseudomembranes which have become detached and rolled upon themselves to form long strings. The limbal type is similar to the papillary type, however there is hypertrophy and limbal infiltration. This may even lead to corneal ulcers. There is a seasonal incidence of this disease and usually the first hot days of spring and summer initiate the onset. Itching is the most prominent symptom and, in fact, it has been the author's experience that when there is itching around the eyes, there is almost always an allergy involved.

Catarrhal Conjunctivitis

Catarrhal conjunctivitis may be acute or subacute, and may occur simultaneously with infections of the upper respiratory tract. In the early spring the incidence is higher and may actually occur in epidemics among schoolchildren. This may be caused by various

etiological factors. The pneumococcus is the most frequent cause, with the Koch-Weeks-influenza group of organisms of next importance. Staphylococcus aureus may also cause this disease. There are many other organisms causing this, such as beta-hemolytic streptococcus, Neisseria catarrhalis and others. When this type of conjunctivitis is caused by the Koch-Weeks and pneumococcus bacillus, there is marked bulbar conjunctival injection with numerous petechial hemorrhages. The cornea is not usually involved and the lids are not usually involved, especially at the margins. Staphylococcus conjunctivitis, on the other hand, is characterized by early eyelid marginal inflammation and often punctate, minute, epithelial lesions in the cornea. Corneal lesions are more likely to accompany the staphylococcus variety than any of the other types. In the pneumococcic type, there is often seen a toxic iritis.

Chronic catarrhal conjunctivitis is probably one of the most common diseases of mankind. Its etiology is varied and there are many predisposing factors such as dust, smoke, insufficient rest, immoderate use of alcohol, and sometimes even refractive errors. It is also frequently associated with diseases of the skin and of the eyelid margins. Most commonly this is caused by staphylococcus aureus and by the diplobacillus of Morax-Axenfeld. There is often an associated chronic blepharitis. It is also secondary to seborrheic blepharitis, quite commonly, and its etiology is still uncertain, however a yeast-like fungus is quite a constant finding in the lid lesions. This fungus is Pityrosporum ovale. In chronic catarrhal conjunctivitis, the subjective symptoms are often out of all proportion to the apparent severity of the disease. There is a constant complaint of eye discomfort, usually worse at night and after the use of eyes for close work. There usually is a foreign body sensation, and a burning discomfort is common. If this is caused by the diplobacillus, there is often a typical involvement of the palpebral angles, and this, then, is termed angular conjunctivitis. There is usually an excoriation and even fissuring of the skin at the outer angles of the lids. This type of conjunctivitis is characterized by its repeated exacerbations and spontaneous healing.

Lacrimal Conjunctivitis

Lacrimal conjunctivitis is one whose primary focus is in the lacrimal apparatus, more particularly the canaliculi, lacrimal sac, and nasolacrimal duct. This may be caused by concretions of streptothrix in the canaliculi, and is oftentimes not recognized by the practitioner. This is almost always unilateral, and ordinary treatment of conjunctivitis has no effect whatsoever upon this type. There may or may not be epiphora, depending upon whether or not both upper and lower canaliculi are blocked. This may be accompanied by copious mucopurulent secretion. Mechanical removal of the concretions results in a rapid cure; however, recurrence is inevitable if the concretion is incompletely removed. Congenital stenosis of the nasolacrimal duct in the newborn is also a common and important cause of this type of conjunctivitis. In this type, where there is no free drainage of tears, it is comparable to a stagnant pool of water, and pneumococci and influenza bacillus are commonly secondary invaders, causing a purulent secondary reaction of the conjunctiva. The same type of reaction is seen in the adult due to a chronic dacryocystitis, which is often caused by a hemolytic streptococcus.

Membranous Conjunctivitis

Pseudomembranous and membranous conjunctivitis is an inflammatory condition in which the fibrinous exudate coagulates and forms a membrane on the surface of the epithelium. Membranous conjunctivitis is only a more severe form of pseudomembranous conjunctivitis, with the exception that the coagulation of the exudate takes place within the conjunctival tissues themselves. The two principal causes are Corynebacterium diphtheriae and Streptococcus hemolyticus. These typical thick membranes may also occur in keratoconjunctivitis or as one of the ocular manifestations of erythema multiforme, or rarely in ocular pemphigus. Diphtheria of the conjunctiva is rare in this country and is usually unassociated with nasal or pharyngeal diphtheria, and there may or may not be other systemic symptoms. The bulbar conjunctiva is rarely involved and the tarsal, and retrotarsal folds, usually display the greyish white membrane. The streptococcal type has, in general, the appearance of diphtheria, however there is usually more exudate and the membrane is more likely to involve the bulbar conjunctiva and the cornea.

Conjunctival Manifestations of Dermatologic Lesions

There is another class of conjunctivitis which occurs as conjunctival manifestations of dermatologic lesions. Ocular rosacea occurs in only a small proportion of cases of rosacea which is essentially a vasodilatation, transient in the early stages, but finally permanent. Grey nodules may appear on the bulbar conjunctiva, in the interpalpebral areas. This may also involve the cornea, secondarily. Ocular pemphigus is a rare dis-

ease of the conjunctiva and associated with similar lesions of other membranes, particularly of the nose or throat. Ocular erythema multiforme is a common complication of erythema multiforme elsewhere. This may assume a catarrhal form, a purulent form, or may even be characterized by the formation of pseudomembranes. Molluscum contagiosum conjunctivitis is sometimes a complication of molluscum contagiosum of the eyelid margins. This may be mild or severe, follicular, or catarrhal in character. This type of conjunctivitis is strictly secondary to the cutaneous lesions, and clears rapidly on elimination of the primary tumors. Psoriasis is occasionally accompanied by conjunctivitis, and even keratitis of considerable severity. This may be catarrhal or purulent in type and may even, on occasion, result in cicatrization. Iridocyclitis is also a frequent complication.

Conjunctivitis Due to Chemical and External Irritants

Conjunctivitis due to chemical and external irritants is becoming an industrial problem and is reported in people working with such substances as tobacco, pepper, soap, fertilizers, hydrogen-sulfide tar, etc. Workers in aniline dye and artificial silk industries are particularly subject to conjunctivitis. Silver nitrate solution sometimes causes a conjunctival reaction, especially when used in the Crede treatment of the newborn. Certain plants and caterpillars oftentimes cause a conjunctivitis and produce severe inflammatory reactions. These may form nodules which constitute a foreign body reaction to the hairs, and is therefore usually known as conjunctivitis nodosa. There are other rare types of conjunctivitis as a result of other disease agents such as Vincent's angina, thrush, sporotrichosis, rhinosporidiosis and leprosy. Parasitic infestations of the conjunctiva are almost unknown in the United States, however they become quite a problem in some of the tropical countries. These are caused by protozoan parasites, nemathelminthiasis, or roundworm parasites, and flatworms. There is also an ocular myiasis due to several types of flies, and this type is occasionally seen in the United States.

Treatment

The treatment of these various types of conjunctivitis has been purposely omitted in this paper mainly because the treatment varies and improves from one year to the next. It is felt by the author that if the diagnosis is known or can readily be found, then the treatment of these diseases can be found in any of the modern up-to-date texts of ophthalmology. It is important to remember that tetracaine or any other anaesthetic agent is to be discouraged in the routine treatment of conjunctivitis. This admittedly will give the patient comfort, but it will also soften the cornea and leave the cornea in a condition susceptible to ulceration and other serious complications. The laboratory is an indispensable, and often overlooked aid in diagnosing these various types of conjunctivitides, mainly because a good many of these diseases are cured before the laboratory might have a chance to render a report. In general the use of local antibiotics can, for the most part, do no harm and will give one something to do while trying to arrive at a proper diagnosis. The use of antibiotics combined with a steroid is for the most part also safe, however if the conjunctival hyperemia is caused by herpes simplex of the cornea, then this steroid will aggravate and complicate the condition rather than help.

Summary

An attempt has been made to present a rather brief thumbnail sketch of the rather numerous causes of the condition we commonly know as conjunctivitis. It is probable that the generalist (and the specialist) see many cases of conjunctivitis which heal because of, or in spite of treatment, and one may never be too sure of the cause. If one uses this paper as a reference, it might be of some interest in these cases of conjunctivitis, to attempt classification even in those cases that heal readily on simple therapy.

Monkeys Lighting Up

Lung cancer has been induced artificially in a laboratory monkey. Since monkeys resemble man more closely than do many other animals, Arthur J. Vorwald, M.D., of Detroit, Michigan, now hopes to teach monkeys to smoke cigarettes as one way of determining the role cigarettes may play in causing lung cancer in humans.

Monkeys might also be helpful subjects in studying effects of polluted air.

Tetanus Antitoxin Reactions

New Methods of Diagnosis and Treatment

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WITH the advent of antibiotic therapy and the widespread development of active immunization programs, the use of commercially prepared products made from foreign sera has greatly diminshed. Anti-pneumococcal serum is rarely, if ever administered. Diphtheria antitoxin, botulin antitoxin, gas gangrene antitoxin, anti-snake venom serum, and, more recently, anti-rabies horse serum and experimental anti-cancer horse serum are used only in infrequent situations. The most commonly used remaining product in this group is tetanus antitoxin. Even though prophylactic tetanus toxoid has been widely administered, tetanus antitoxin is still given for passive protection in non-immunized individuals.

The main reasons for the necessity of this material is that those previously immunized persons have not continued their protection at least once every five years. It has been taught that if a patient has not had an injection of tetanus toxoid within five years previous to an injury, a booster injection of tetanus toxoid may not be sufficient to give him adequate protection against tetanus, and passive immunization with tetanus antitoxin must be employed. However, recent studies have shown that a protective antitoxin level can develop as late as ten to fifteen years later after the initial immunization with a booster toxoid injection.

There are several problems that develop when one sees a patient with an accident. Is there a likelihood of tetanus infection from this injury? There is no doubt in any of our minds that a man who steps on a rusty nail on a farm near a pile of manure should be given prophylactic treatment. However, what about the superficial injuries which take place in a clean machine factory or in the home? Certain investigators feel that with this type of injury, debridement and antibiotics are sufficient protection, but others have reported that tetanus infection frequently develops with this type of therapy. Occasionally, even a supposedly insignificant wound can be troublesome. Recently, I was told of the following case: "A 60-year-old woman scratched her thumb on a thorn of a rose bush. Her physician advised tetanus antitoxin, but she refused because her grandson developed serum sickness from such an injection. The grandmother subsequently died of tetanus."

Now that the dangers of tetanus infection have been described, what are the complications of an injection of prophylactic tetanus antitoxin? Von-Pirquet and Shick, in 1905, first described classical serum sickness. Since that time considerable investigation in this area went on for the next twenty-five years.

As you all recall, there are three chief types of reactions from injections of foreign sera: (1) primary, (2) accelerated type and (3) anaphylactic or atopic.

I shall briefly describe the clinical and immunologic reactions of each of these three types of reactions.

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Primary Serum Sickness (Table I)

Primary serum sickness occurs from seven to fourteen days following the injection of horse serum and is characterized by generalized malaise, rashes, from urticarial to morbiliform, joint aches and pains, low

TABLE I. PRIMARY SERUM DISEASE

Symptoms	Complications	Laboratory Findings
Rash Fever Joint pains	Neuritis Nephritis Collagen disease	(1) Eosinophilia, albuminuria, increase in heterophile, precipitating and hemagglutinating antibody titers (2) Development of skin-sensitizing antibody

grade temperature. This may be mild and transient, last only a few days, or there may merely be a marked local swelling at the site of the original injection, or it may be very severe, lasting for several weeks and a variety of complications can develop. They may be in the form of peripheral Brachial neuritis, which is the most common, to optic neuritis, Guillian-Barré syndrome,[1] nephritis, or even collagen disease.

The laboratory findings may show an eosinophilia, albuminuria, hyaline casts, increase in heterophile titer, and the development of a positive skin test to horse serum.

The immunologic explanation of this condition is that after the injection of the antigen (the tetanus antitoxin horse serum), antibodies against this antigen gradually develop, and when there are sufficient antibodies and antigen still present in the circulation, soluble antigen-antibody complexes (in antigen excess) are formed which in turn act on the various tissues to produce the symptoms described (Fig. 1).[2] Skin-sensitizing antibodies develop during the course of the symptoms, and as the patient convalesces there is a gradual marked increase in precipitating, anaphylactic and hemaggultinating antibodies. These antibodies are present in decreasing but significant amounts for many years.[3]

Accelerated Serum Sickness

Accelerated serum sickness occurs in patients who had a previous injection of horse serum and still have some of the precipitating antibodies present. An injection of the antigen will produce an amnestic response and antibodies will form more quickly. Hence, the symptoms will appear from 1 to 5 days following the tetanus antitoxin. These symptoms and laboratory and immunologic findings, complications, et cetera, are essentially the same as with Primary Serum Sickness. Occasionally a patient of this type might develop dyspnea and wheezing. These reactions are rarely fatal.

Atopic Type Serum Sickness

Atopic type of serum sickness occurs in patients who have had or have some allergic disorder and are known to be sensitive to animal danders or mammalian sera. These patients already have skin-sensitizing antibodies present as evidenced by the positive skin test. If such a patient were given an injection of tetanus antitoxin, within minutes an antigen-antibody reaction and death could ensue. Within the past few months, we had one patient who developed a severe, systemic reaction with shock, fever, generalized erythema a few minutes after a skin test

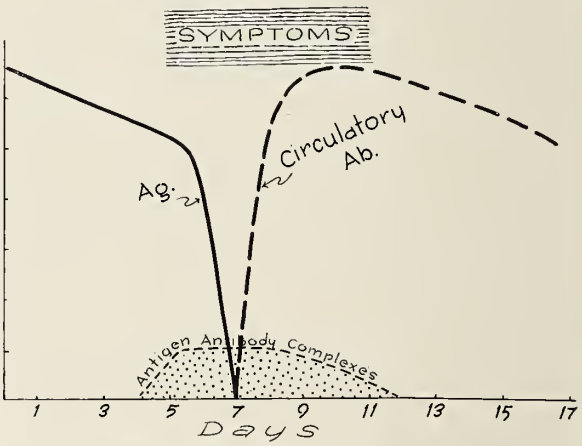


Fig. 1. Rate of disappearance of horse serum, and appearance of circulating antibodies against horse serum. Symptoms occur with the development of soluble antigen-antibody complexes, in zone of antigen excess.

to the horse serum. Of all the types of effects of serum injections this is the most serious and severe. Hence, to avoid this type of reation the following procedures should be instituted: (1) A careful history is taken as to sensitivity to animals, hay fever, or asthma, and a past record of previous injections or reactions to sera. (2) Then scratch followed by intradermal skin tests with the tetanus antitoxin is performed. If negative, then to be sure that there are no skin-sensitizing (or reaginic) antibodies present, an ophthalmic test is performed by placing a drop of the horse serum in the conjunctival sac. If an allergic reaction develops an inflammation and conjunctivitis will develop, which can easily be controlled by the local administration of some epinephrine. *Never give tetanus antitoxin horse serum if possible when there is either a positive intradermal or con-*

junctival test! What does one do, then, if the patient is allergic, has an injury that, in your opinion, necessitates protection against tetanus? There is available bovine antitetanus toxin which could conceivably be employed, but not without first testing the patient with this material. We, and others, have found that there are certain common antigenic factors in bovine and horse sera. We will discuss this later if time permits.

The slow split dosage technique originally described by Besredka could also be attempted. This consists of gradually increasing amounts of tetanus antitoxin given every 15 to 30 minutes in an effort to produce desensitization. One may have to start with a dilution of 1:1000 of the original material. This type of therapy is not without its risks. A systemic reaction could develop with a very small dose of antigen. Hence, epinephrine and antihistamines should be kept immediately available. If both of these alternatives fail then one must resort to antibiotics and local therapy (wide debridement, et cetera)—and prayer.

The incidence of primary serum disease is dependent upon the total amount of serum injected, the purity of the serum, and the route of administration. It has been shown that if 100 cc. of crude, unrefined horse serum is given to patients, 90 per cent will develop some type of serum sickness, whereas, if only 10 cc. is given only 10 per cent are affected. If the foreign sera is given intravenously or intrathecally the incidence is greatly increased. In recent years, the tetanus antitoxin which is available has been purified and concentrated by enzymes and chemicals so that all one gives for prophylactic treatment is 1500 units contained in ½ cc. of despeciated horse serum globulin. Despite this relatively small amount of purified horse serum injected, reports from various investigators[4] show that the incidence of primary serum sickness (in skin-negative patients) varies from 5 to 10 per cent.

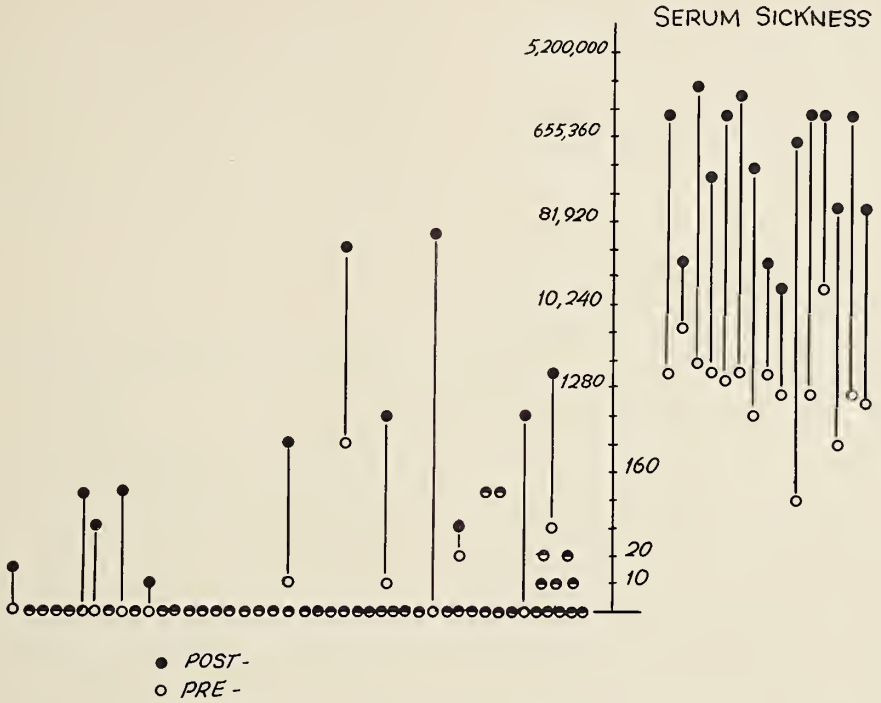


Fig. 2. Hemagglutination titers of patients' sera before administration of tetanus antitoxin and 8 to 14 days after such injection. Solid circles indicate sera after injection of tetanus antitoxin. Open circles—sera prior to treatment with tetanus antitoxin. Patients developing serum sickness not only had much higher titers following the occurrence of symptoms, but also had greater titers prior to this prophylactic therapy.

In our studies on this subject, we asked ourselves, what is different immunologically in these patients who are afflicted? After all we are injecting a foreign protein into all of these people and some respond abnormally.

Blood serum samples were obtained from all pa-

tients who attended the emergency clinic of the Buffalo General Hospital who had negative skin tests to horse serum and required tetanus antitoxin. They were asked to return in two weeks unless symptoms appeared earlier. Subsequent blood serum samples

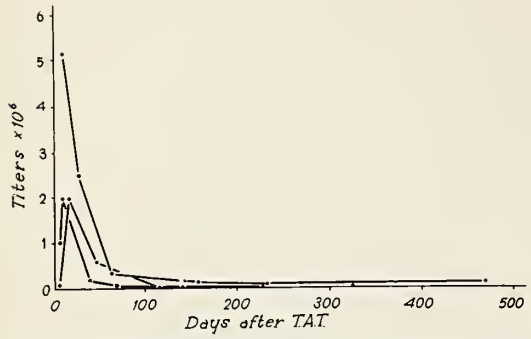


Fig. 3. Hemagglutination titers of the sera from four patients who developed serum sickness. These titers were still elevated 472 days following tetanus antitoxin injection.

were obtained. We employed the tanned cell hemagglutination test to study the antigenic response of the tetanus antitoxin on these sera. Briefly, this test consists of treating human type 0 red blood cells with tannic acid and then coating these cells with a 1:200 dilution of horse serum. These tanned, coated red blood cells were then added to varying dilutions of the patient's serum.[5,6] If antibodies are present in the serum an agglutination of red blood cells occurs. The highest dilution of patient's serum which still caused agglutination of the coated cells is called its titer.

The results of our studies showed that all patients who developed serum sickness had a very high titer (Fig. 2). Likewise, all of these patients had an initial pre tetanus antitoxin titer which was over 200. Whereas, those who did not develop serum sickness had an initial titer of 0-200, and the increase was minimal, if at all. Hence, we can now predict by this test which patients will develop serum sickness.

These findings can be of practical importance in two ways. First, if one finds an initial pre tetanus antitoxin titer above 200, perhaps the serum sickness can be prevented or modified by the use of corticosteroids and/or antihistamines. Secondly, one could conceivably differentiate between a penicillin reaction (which can give the same symptoms) and a serum reaction. Frequently following an injury the patient is given both tetanus antitoxin and penicillin, and 10 to 12 days later develop classical serum disease. This could be due either to the penicillin or serum. If the titer against horse serum is high then one could state that the reaction was due to this material.

Follow-Up of Sera

The hemagglutination titers of patients with initial high titers post tetanus antitoxin injection were followed intermittently for many months. The graph in Figure 3 shows the gradually decreasing titers. The high titers were demonstrated within 24 to 48 hours after the onset of a serum sickness, and have lasted in high, but decreasing titers as long as 472 days. We obtained the sera from one patient who developed serum sickness 16 years ago. This titer was still 16,000.

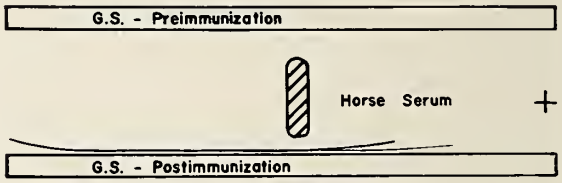


Fig. 4. Patient G.S. before and after injection of tetanus antitoxin. Immunoelectrophoresis experiment: Horse serum (the antigen) was subjected to electrophoretic separation. The pre-immunization and post-treatment sera samples were then placed in the longitudinal wells. An arc of precipitation with the post-immunization serum is in the alpha globulin of the horse serum.

In order to study this observation further, we resorted to the use of the technique of immunoelectrophoresis to note the immunologic reactions of the various components of horse serum or of antitoxin separately.[7] We wished to find out what components of antitoxin are important as objects of antibody formation by patients developing serum sickness. Are the responses uniform or do different individuals form antibody to different components? Are these same antigens found in normal horse serum? And, finally, is the antibody directed against the antitoxin itself, or against some other antigen of the antitoxin mixture?

Figure 4 illustrates the immunoelectrophoretic reaction obtained with the paired serum sample of one serum sickness patient, G.S. In this case whole horse serum was subjected to electrophoresis in agar and the two serum samples then placed in the longitudinal walls. The pre-injection sample did not show a visible reaction, evidencing the lower sensitivity of this technique when compared with hemagglutination. The post-injection sample, however, formed a single arc of precipitation. Other electrophoresis studies showed

that this reaction occurred in the area normally occupied by the alpha globulins of horse serum.

Other sera from patients with serum sickness were then studied, again using horse serum as antigen.

Of these 14 sera, seven showed antibodies against gamma globlin, three against alpha globulin, and four against both (Table II).

In addition to the development of hemagglutination antibodies, it has been known that skin-sensitizing antibodies develop temporarily in patients who have serum sickness. These antibodies were found in 22 of 24 patients tested. They occur prior to a high rise in hemagglutination titer and concomitantly with the onset of symptoms. They usually cannot be demonstrated after one to two months.

TABLE II. COMPARISON OF HEMAGGLUTINATION TITER TO ANTIGENIC FRACTIONS OF SERUM

Number of Patients	Hemagglutination Titer Range	Immunoelectrophoresis
7	130,000 to 1,300,000	Gamma
3	100,000 to 2,000,000	Alpha
4	130,000 to 1,300,000	Alpha & Gamma
3	32,000 to 100,000	No PPT.

By various immunologic procedures, namely, hemagglutination, immunoelectrophoresis and passive cutaneous anaphylaxis, we demonstrated that the antibodies in the patients' sera are in the gamma globulin fraction. However, our studies on the localization of the temporarily formed skin-sensitizing antibodies are as yet not conclusive.

TABLE III. SERUM SICKNESS PATIENT

Antigen Serum	Hemagglutination Titer
Mouse	800
Guinea pig	800
Cat	500
Rabbit	1600
Hog	2000
Lamb	200
Rat	0

In the course of our studies, hemagglutination tests were made using serum of the patient with serum sickness coating the tanned cells with various mammalian sera (Table III). It can be seen that all sera, except rat, gave some reaction, but in much lower titer than did the horse serum. This indiates some common antigenicity of various mammalian sera.[8]

Further evidence of this cross reactivity is confirmed by the following case:[9]

Dr. H.S., a dentist, stepped on a rusty nail in the basement of a house over 30 years old. He reported that he had a very severe serum reaction 25 years ago from tetanus antitoxin. He also is a markedly allergic individual suffering from seasonal hay fever and asthma. A blood sample was obtained, then he was skin tested with bovine serum. His reaction was equivocal, but because of his story, and knowing the possible common antigenicity between horse and bovine sera, we were still skeptical, so a conjunctival

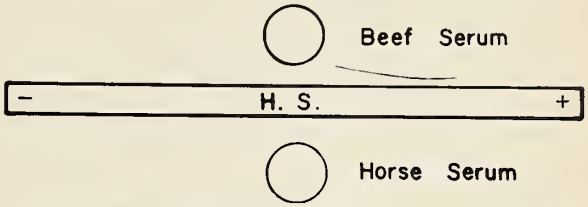


Fig. 5. Immunoelectrophoretic study of serum from patient who developed serum sickness from bovine antitetanus serum. There was a reaction with the alpha globulin of the bovine serum, but no detectable reaction with the horse serum.

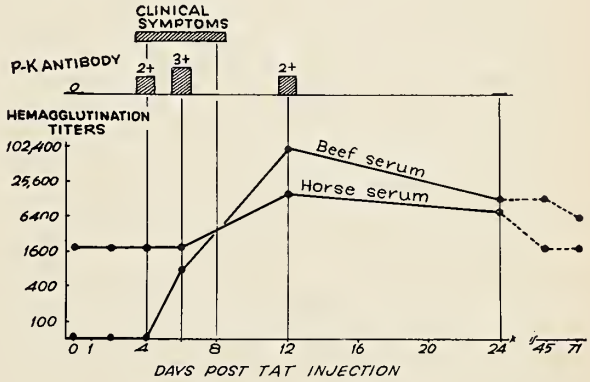


Fig. 6. Immunologic data on serum of patient following bovine antitetanus administration.

test was performed. Here we ran into difficulty. This man had had bilateral conical cornea. He had a successful corneal transplant in one eye, but the other eye was lost. Hence, would a conjunctival test be of any value? At any rate it was performed and was negative. He was then given 5.0 cc. (1500 units) of bovine tetanus antitoxin. There was no immediate reaction. However, three days later he had a marked generalized swelling at the site of the innoculation and generalized aches and pains, and low grade fever, but no evidence of a rash. Using symptomatic medications such as aspirin and antihistamines this soon subsided. However, we were able to obtain serum samples from him at regular intervals for study.

An immunoelectrophoretic study of this serum against bovine serum showed one line in the alpha fraction. (Fig. 5).

The slide shows the hemagglutination antibody titers against horse serum and bovine serum over the course of this study. (Fig. 6).

Studies for passive transfer antibodies against both bovine and horse sera were also performed. The pK antibody disappeared between the 12th and 24th days. There was no demonstrable skin-sensitizing antibody to horse serum.

This case shows the beautiful amnestic response of the horse serum antibody to injection of bovine serum. The immunologic findings followed relatively mild reaction from this serum. And, again, the common antigenicity of various mammalian sera.

Summary and Conclusions

We are continuing with our studies in this field. At the present time, we are attempting to develop a rapid method for determining this antibody so that it could be used by attendants (residents or interns in the emergency room) and physicians in their offices.

The tanned cell hemagglutination test for horse serum antibodies is specific, reproducible, and extremely sensitive. Only patients who develop serum sickness show high titers (above 2000).

Only those patients who had a hemagglutination titer of 200 or greater, *prior* to the injection of tetanus antitoxin, developed serum sickness.

This technique may prove useful in the differentiation between "serum sickness syndrome" produced by horse serum or penicillin.

There is only slight cross reactivity between horse dander and horse serum but greater common antigenicity betwen various mammalian sera and horse serum.

There is a smaller but significant rise in hemagglutinating antibody titer (to under 2000) in many of the patients who receive tetanus antitoxin but do not develop serum sickness.

If one found a high pre-tetanus antitoxin titer against horse serum, it would be conceivable to warn this patient of same, and perhaps the use of corticosteroids and/or antihistamines during the incubation period could prevent this syndrome from developing. Hence, we can predict which patients are prone to primary serum disease. This could not have been done in the past. However, the immediate (atopic) type of reaction, can be predicted by the presence of a positive skin test. This has been known for many years. The accelerated type of reaction can be expected from both a history of previous horse serum injections and the hemagglutination test.

Of course, the use of tetanus antitoxin could definitely be reduced by immunizing the population with toxoid and being sure that they have a booster *once every five years,* and a booster whereever prophylactic tetanus antitoxin is indicated. Many injections of tetanus antitoxin are given indiscriminately for every small injury. This should be reserved only with deep puncture-type wounds and when and where tetanus spores may be found.

Patients with a history of serum reactions should not only be given toxoid prophylactically, but also should have a card and wear a "dog tag" stating—*I am allergic to horse serum.*

Our studies have shown a definite cross antigenicity between various mammalian sera. The use of bovine serum in place of horse serum is not without danger.

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Long-Term Blood Preservation—A Reality

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THE LONG-TERM preservation of living tissues is now a reality. Suspended in a state of ametabolism at low temperatures, blood,[1,2,3] bone marrow,[4] sperm,[5] and certain homogenous glandular tissues[6] have been successfully maintained in "cold storage" for varying lengths of time. In the case of blood, the storage time has been extended to five years.[7]

It is the intent of this report to present the data and some of the more interesting facets of the clinical use of blood which has been preserved by protected freezing, and to show that red cells resuspended in a serum albumin medium can substitute for whole blood, even in massive transfusions.

Method

The method of long-term blood preservation used at the U. S. Naval Hospital, Chelsea, Massachusetts, employs the Cohn fractionator, a specialized centrifuge which separates the erythrocytes from its plasma and other cellular elements. At the same time, this fractionator allows for the replacing of the intracellular water with a 50 per cent glycerol solution. The erythrocytes, protected against the damaging effects of freezing by the glycerol, are bagged in a plastic envelope, and frozen to a –80°C. for storage in an ametabolic state. The frozen blood can be stored either in mechanical reefers as we do in our blood bank, or packed in dry ice for temporary storage or transportation. When blood is needed, days or years later, the frozen units are thawed in a 37° water bath; the glycerol is removed again by using the Cohn fractionator, and washing with decreasing concentrations of glycerol.

The deglycerolized erythrocytes are resuspended either in their own plasma, which was frozen as a separate unit after the original separation, or in a 5 per cent serum albumin menstruum. Blood so reconstituted may then be safely kept in the standard blood bank refrigerator at 4°C. for at least 21 days. The process of glycerolization, freezing and deglycerolization does not alter the grouping, typing or cross-matching reactions. Routine methods are employed; all units are grouped and typed before and after freezing.

The details of this glycerolization and deglycerolization process have been previously reported by Tullis, Haynes et al.[7] It should be re-emphasized that the entire process is in a closed system, where sterility is rigidly maintained. This has been substantiated by over 10,000 cultures of bloods so processed, without a single incidence of contamination which could not be explained by a break in technique which was obvious to the operator at the time.

The use of disposable plastic bags and tubing exclusively has greatly facilitated the closed and sterile handling of the blood as well as decreasing the space required for frozen storage.

Biochemical and Survival Studies

In vitro biochemical studies on processed red cells support the clinical conclusions that the cells maintain the functional and metabolic characteristics of freshly-collected blood. Of prime importance in the use of cells for transfusion is the ability of the hemoglobin to function adequately in the transport of oxygen to the tissue level. Oxyhemoglobin dissociation curves have been constructed for bloods frozen up to 31 months and reconstituted in their original ACD plasma.[8] The position of the curves on the day of thawing was comparable to freshly drawn ACD blood.

Curves constructed on units of fresh and store-in-ACD blood confirmed the findings of Valtis and Kennedy that a significant displacement of the position of the oxyhemoglobin dissociation curve to the left occurred when such blood was stored at 4°C. for periods longer than seven days.[9] When thawed bloods

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reconstituted in ACD plasma were stored at 4°C., an effect identical to that described by Valtis and Kennedy could be demonstrated.

As an estimate of the state of glycolysis, a fractional

TABLE I. SURVIVAL

Blood Category	Average 24-Hour Survival	Average Half-Life
ACD (Fresh and bank blood)	91.3%	29.9 days
Deglycerolized blood	92.6%	30.9 days
Deglycerolized blood stored at 4 degrees Centigrade for 12 days	77.8%	24.3 days
Deglycerolized blood after repeated thawing and freezing	85.0%	16.5 days

hydrolysis of organic phosphate esters has been carried out.[10] Phosphate partition hydrolysis on freshly-collected ACD and CPD blood, and on blood frozen for periods up to two years, indicate that there is essentially no difference between frozen and freshly collected bloods.

The electrolyte composition and cation flux of frozen cells have been compared to values obtained with freshly collected blood.[11] Following a three hour incubation at 37°C., the extracellular sodium ion concentration was higher and potassium ion concentration lower than the concentration of the resuspension media used. This indicates an active net outflow of the sodium ion, and an influx of potassium ion against a concentration gradient, and therefore implies the integrity of the energy requiring "sodium pump."

Potassium flux of frozen deglycerolized cells was not significantly different from the freshly drawn ACD blood. The sodium flux of deglycerolized cells varied widely, but when corrected for mean corpuscular volume differences, the values for heparin and deglycerolized bloods were comparable.

In vivo survival studies were performed, using radioactive chromium CR_{51} tagged erythrocytes of 200 units glycerolized and frozen from one to 44 months, aliquots of which were infused into healthy "volunteer" recipients. The survival of tagged erythrocytes was measured at one to four day intervals for the next two months. The results obtained are compared to fresh ACD blood run concomitantly as a control study.

The 24-hour survival and half-life times are comparable to, or even a little better than that for ACD preserved blood. Other chromium studies indicate that an average of 82 per cent of the original cells taken from the donor actually reach the vein of the recipient. Most of the 18 per cent loss of red cells is due to mechanical factors during the processing rather than hemolytic loss, and appears to be independent of the storage time factors. This loss, we feel, will be substantially reduced by current design modifications of the mechanical equipment.

It is to be noted that there is no critical temperature in this method of blood preservation. The minus 80°C. was selected because it happens to be the approximate temperature of dry ice and alcohol. Actually most metabolism of the erythrocytes stops at below a minus 40°C., and it takes eight hours for the blood mass to reach the ambivalent temperature. Further, we have found that thawing of the glycerolized units for one day and then refreezing them, even when repeated several times, results in a satisfactory yield. A temporary power failures does not harm the bloods in storage.

These studies would indicate that red cells glycerolized, frozen and deglycerolized, function in the recipient's circulation as normal viable erythrocytes. These, then, are not frozen blood, like frozen peas, but are living tissues in suspended animation. Although the life of a red cell is only 120 days, after five years of suspended animation, it still lives a normal life span.

Clinical Observations

As of September 1, 1961, 2,250 units of frozen blood have been given to 653 patients of all ages. Eighty-five per cent of the transfusions have been to patients with acute blood loss, either from hemorrhage or as replacement therapy at surgery. Although one-third of the units of blood have been with the reconstituted red cells resuspended in their own (ACD) plasma or heparinized plasma as whole blood, two-thirds have been administered with the red cells resuspended to volume in a 5 per cent serum albumin medium. This medium contains—in addition—sodium chloride, potassium phosphate and glucose.

TABLE II. RESUSPENSION MEDIUM*

Medium	Final Concentration
Albumin	5%
Sodium	0.12M
Dextrose	0.4%
Potassium phosphate, monobasic	0.0025M

*For packed red cells, use 60 ml. per unit of red blood cells.
For whole blood replacement, use 250 ml. per unit of red blood cells.

Detailed osmotic evaluation and observations on patients have shown that this medium functions most satisfactorily as a volume expander, and is an ideal vehicle for the red cells.

The advantages of this blood over that which has come to be considered standard bank blood are many. It contains no preservatives. Because the cells are

thoroughly washed in processing, metabolic products and the cellular debris of the buffy coat have been removed; urticarial and pyrogenic reactions are not seen. The simple buffer system allows for easy regulation of the pH, and thus has little effect on the recipient's pH. The basic menstruum allows itself to be tailored to suit the patient's specific needs; fibrinogen and thrombin may be added. The electrolyte pattern can be altered to individual requirements. As an example, by eliminating potassium from the resuspension media, we are able to produce a unit of blood with a serum potassium level of less than 1 meq./liter, which is ideally suited for exchange transfusions in infants, in massive transfusions, and particularly for transfusing uremic patients in renal shut-down. This low potassium blood, however, must be used within 24 hours.

TABLE III. MASSIVE REPLACEMENT WITH RED CELLS IN SERUM ALBUMIN

Number 500cc Units Given	Surgical Cases	Medical Cases	Total
5	8	1	9
6	10	0	10
7	4	0	4
8	2	1	3
10	2	1	3
11	1	0	1
	27	3	30

With these characteristics, deglycerolized red cells in the serum albumin menstruum suggested itself as an ideal prime for the extracorporeal pump. In a pump oxygenator which employs a Kay Cross disc oxygenator and non-occlusive DeBakey pumps, this blood has been used four times with complete satisfaction. Deglycerolized cells in heparinized plasma have been used as the prime in six cases. Prolonged recirculation through the pump oxygenator caused no increase in break-down of the erythrocytes; if anything, thawed deglycerolized cells showed less change during prolonged recirculation than has been found with fresh, heparinized blood.[12] These studies are being continued in cooperation with Doctor Watkins at the Lakey Clinic.

Frozen red cells resuspended in 5 per cent serum albumin solution have been used in 560 surgical and trauma cases, all of which were carefully observed both in the operating room and on the Intensive Care Unit. The majority of these cases received less than four 500 cc. units. In all cases, it functioned, in sustained volume replacement and gas transport, equally as well as would have fresh whole blood.

Because such blood is completely devoid of fibrinogen, platelets and the other clotting elements contained in whole blood, we were concerned as to what might happen in individuals requiring massive replacement.

Table III tabulates our cases in which massive replacement was necessary. It does not include the four cases with extracorporeal circulation or 22 exchange transfusions for erythroblastosis for thrombocytopenia in which red cells in albumin solution were used. In several of the 30 cases, we were able to study in detail the coagulation profile and the hemogram, both before and after infusion. These data revealed that, in spite of what amounted to an 80 per cent exchange transfusion, in some instances the platelet and white cell count actually rose to exceed the pre-infusion level, and a drop in the bleeding time occurred within the first 48 hours. In no case was there evidence of bleeding tendency or tissue oozing, either during the operative procedure or during the postoperative period. This has been most graphically seen in the thoracic patients who have been characterized by a minimal amount of blood drainage from their chest tubes.

To date, the bleeding problems commonly encountered when ACD blood is used for massive transfusions have not been observed in our cases.

TABLE IV. LABORATORY STUDIES OF PATIENT IN CASE REPORTED

Operation: Bilateral Aortico-ilio-femoral Endarterectomy and Graft Transfusion Data: 6,280 cc. Red Cells Resuspended in Serum Albumin

Preoperative		Operative Day	1st Postop. Day	2nd Postop. Day
HCT	44	42	38	34
HGB	15.6	14	—	11
WBC	14,850	—	18,150	23,400
Platelets	272,000	255,000	155,000	235,000
Lee-White	12′47″	—	12′20″	10′5″
Prothrombin	100%	87%	87%	100%
Fibrinogen	0.332	0.214	0.543	0.744

Illustrative of some of our observations is the following case report and Table IV listing a portion of the laboratory studies in this case.

RD, a 39-year old man was hospitalized because of claudication of the buttocks and left thigh, and impotence. Two years prior to this admission, a left lumbar sympathectomy and a freeze-dry by-pass graft of the left iliac artery had been performed for similar complaints, following which he had partial relief of symptoms for one year. Physical examination and aortography revealed partial occlusion of the terminal aorta and right common iliac; the by-pass homograft was completely occluded.

At operation, an endarterectomy of the terminal aorta on the right iliac was performed. The thrombosed homograft was removed, and a Tapp-Edwards woven teflon prothesis from the left common iliac root to the femoral artery was used to re-establish arterial perfusion of the left leg. During

the six hours of surgery, the patient received 3,550 cc. of frozen deglycerolized red cells suspended in albumin solution, an estimated 60 per cent replacement of his blood volume. During the following 96 hours, he received an additional 2,700 cc. to compensate for an underestimated blood loss at the time of surgery.

Discussion

The Blood Research Laboratory has become an integral part of the blood bank of the hospital, and at the present time when whole blood is requested, either ACD blood direct from the donor or frozen blood is furnished. At first, it is difficult to realize that five-year-old blood out of the freezer has all of the characteristics of fresh blood.

As can be seen, the vast majority of frozen blood cells are given resuspended in the serum albumin menstruum, although the red cells resuspended in their original plasma are also available. The reason for this trend has been the many growing advantages of frozen glycerolized red cells resuspended in the 5 per cent albumin menstruum. It should be re-emphasized that this blood contains no anticoagulants, preservatives or additives, and it may be kept for at least 14 days in the refrigerator at 4°C. It can be tailored to suit the individual patient's needs, adding those elements of the blood as required.

Being able to order low potassium blood for hyperkalemic patients has been a real practical advantage, and because the buffy coat is removed in the process 10 to the minus 18th power, there is a complete absence of non-hemolytic reactions. Elimination of the pyrogenic and urticarial reactions has allowed us to give this blood as rapidly as it is needed, and has greatly reduced the time required for a transfusion on our wards. There have been no proven cases to date of homologous serum jaundice in this type of blood, and this study is being carried on. When enough cases have been observed to make the study of statistical value, it will be reported at a later date.

The red cells in albumin have proven to be adequate for replacing blood volume in 555 surgical patients. Our preliminary studies, using this menstruum as a pump prime and for exchange transfusions in erythroblastotic infants, in idiopathic thrombocytopenic purpura and in leukopenia, is revising our thoughts on coagulation mechanism and will be reported later as a separate study.

In addition to the standard blood-bank services being provided, the following activities have been initiated at the hospital. At the present time, we have a stockpile of 600 units of blood which is soon to be expanded to 1,000 units. This stockpile is adequate to take care of a minor catastrophe in the Boston area. With the facilities now at hand we would be able to process 150 units each 24-hour period.

Preparations are being made to test a commercial unit being made by the Arthur D. Little Company of Cambridge, Massachusetts, and when this unit becomes available, the stockpiling for mass casualties will be a reality.

Individuals are storing blood for later auto-transfusions, and a stockpile of very rare type bloods has been established at this hospital in cooperation with the American Association of Blood Banks. These very rare types are available to anyone who needs them, providing the need is established through the above-mentioned organization.

Conclusion

The preservation of whole blood is now a reality, and has functioned for the past two years at a full clinical level at the U. S. Naval Hospital, Chelsea, Massachusetts.

The red cells resuspended in a serum albumin medium in preference to plasma has been shown to be adequate for blood volume replacement even in massive transfusion, and many new advantages are becoming evident.

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MSMS Postgraduate Program Superior

The membership of the Michigan State Medical Society can view with justifiable pride its progressive program of postgraduate medical education activities.

The members can not only look at the present and future plans but can also reflect with satisfaction on its early foresight in organizing and developing a vigorous program under the aegis of the MSMS Committee on Postgraduate Medical Education.

First, we can look back to 1927, which marks the beginning of the postgraduate education program. The establishment of the Department of Postgraduate Medicine at the University of Michigan Medical School that year was the result of a request from the Michigan State Medical Society for opportunities for its members to continue their education under academic direction and control. The request was made upon the recommendation of a committee composed of representative members of the two medical schools and the MSMS.

Michigan was the first state to have such a cooperative program. It is unique in that it serves as a liaison for postgraduate activities in the State, through a Committee composed of representatives of the Society, the Wayne State University College of Medicine, The University of Michigan Medical School and the Michigan Department of Health. The Chairmanship of this Committee is held by the Director of the U-M Department of Postgraduate Medicine.

These organizations cooperate through the committee in a twice-yearly teaching program in 18 cities throughout Michigan, as well as in the correlation of graduate and postgraduate education programs at the medical centers. The members of the Committee devote themselves to providing the best postgraduate educational opportunities for all the doctors in Michigan.

Through this cooperative effort many programs in postgraduate medical education have been financed throughout the State. More than two-thirds of the members of the State Medical Society as well as many physicians from other states and foreign countries avail themselves of the postgraduate programs sponsored by this joint committee.

The sincere efforts of this Committee have contributed in great measure to the national reputation that Michigan has attained in its program of postgraduate medical education.

Furthermore, the principle of uniting all our efforts in an attempt to correlate postgraduate medical education activities has served as a model for other state medical organizations and institutions of the country.

JOHN M. SHELDON, M.D., *Chairman*
Committee on Postgraduate Medical Education

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Continuing Education Urged

This number of the MSMS Journal focuses attention on the MSMS Postgraduate Medical Education activities — and it is appropriate to quote from a recent American Medical Association Journal article about "Lifelong Learning for Physicians." The extensive article by Bernard V. Dryer, M.D., Cleveland, discusses the principles involved in continuing education projects, and also evaluates various practices and proposals.

Following are some pertinent remarks by Doctor Dryer that merit repeating for all MSMS members to study:

"Recognition of the importance of the continuing education of the physician has been increasing in recent years. Because of the tremendous expansion in medical knowledge, modern physicians are confronted by an almost impossible task in attempting to keep themselves abreast of new developments.

"Most physicians work hard at this, primarily through reading a multitude of scientific journals and through attendance at hospital staff meetings and scientific meetings of professional organizations. However, changing patterns of medical care, resulting in part from diagnostic and therapeutic advances, and the rising tide of medical publications, which threatens to engulf all physicians, have made the familiar procedures of reading and attending meetings less adequate for the task of keeping informed.

"It has been recognized that the physician must be a lifetime student if he would maintain his full professional competence. As pointed out in the Report of the President's Conference on Heart Disease and Cancer, '. . . the best medical education and training can become obsolete in 5 years unless the physician makes a very determined effort to continue his education . . .'

"Even with a determined effort the physician is likely to find himself falling behind the continual scientific advances, unless he can participate regularly in systematic courses by leaders in medical education.

"The complexity of the problem demands organized, comprehensive, sequential courses in all areas of medicine; unfortunately, these are not widely available today."

Thank You!

This number of THE JOURNAL describes the effective work of the MSMS Postgraduate Medical Education Committee and the series of clinic days held annually across the state. We are indebted to John M. Sheldon, M.D., Chairman of the Committee, for his assistance.

George Romney

In November, the State of Michigan elected a new Governor, George W. Romney, new to politics, but fresh from the American Motors outstanding success, and from the Constitutional Convention. This has great importance for the medical profession, and especially our Blue Cross-Blue Shield programs. Unfortunately, he may be alone because of the administrative board upon which he must depend, all of whom are of the opposite party and basically pledged to the theory of old-age medical and hospital care methods opposed by the medical profession. We welcome Governor Romney with open arms.

Blue Shield Problems— A Kinder Hearing?

President Kennedy didn't do so badly. He had some strong supporters elected and re-elected. He has promised us that one of his prime objectives in the next Congress will be Medicare through Social Security. In Michigan, however, we should have not only a breathing spell but also a measure of tranquility which has been missing for the last seven years.

It is not necessary to review those years, but we would remind our members that most times when our Blue Cross and Blue Shield have felt the need for a rate adjustment, the Insurance Commissioner has posted public hearings. These hearings have inspired a tremendous blast and villification from certain of the public telling how horrible the doctors are—"crooks," "gougers," everything else.

During its formative years, especially these last seven years, Blue Cross and Blue Shield as the late Senator Vandenberg told us, have unknowingly but actually established two great public trusts, so massive that almost half of our population is dependent on them in part or in whole for medical and hospital services. The last few years have seen repeated public hearings where people were actually invited to come half across the State and spout without hindrance all the disadvantageous things they could think of about the medical profession and its activities. Selfish or political oldsters who were not involved in the topics under discussion as far as medical care is concerned were transported. The impression given was of the advantages of the Social Security care which the administration was favoring while refusing to administer or even recognize the helpful Kerr-Mills Act which was enacted to cover just this classification of over-65 persons. It needed only minor amendments to be completely adequate over a large portion of the State.

The "Governors Commission" finally got to work and brought in a report. It took so long that the Commission itself had been dissolved and a new one had to be appointed to receive that report. The new Commission went through this report and made its recommendations which have not yet been published, but is in mimeograph form. During all this process of seven years, the various interested organizations have probably spent more than three quarters of a million dollars in studies. The Kellogg Foundation had spent over $400,000, the Michigan State Medical Society and Michigan Medical Service each invested tremendous sums through their staffs' studying and analyzing these reports.

We have searched diligently, looking for something we could use. Now we come to what can be done. There must be some use other than fuel. The Commission's Report to the Governor has 45 recommendations. We believe a study of those recommendations will point the way to smoother sailing and harmony.

In the first place, this report made one outstanding suggestion—that the Insurance Commissioner should remember that his duty is not to hinder but to so administer that these public service corporations, upon which so many of our public depend, remain solvent. That is his duty. The insurance law does not provide for holding public hearings. The new Commission recommends that the courts are the place to hold these public hearings where there will be "proper administration and proper decorum." That, we believe, is probably the most important recommendation from this three quarters of a million spent.

Committees are still working. Blue Shield and the Michigan State Medical Society are studying and will undoubtedly present to the new Governor a suggested course of action. In the meanwhile, if he has an opportunity, the Governor might instruct the Insurance Commissioner and get him to work under new orders. We doubt that there is any value in going through the 2,000 pages of reports from McNerney and from the new Governor's Commission. The latter should be read, however, for it contains a few astute suggestions which, if followed, might smooth the road and allow our medical and hospital care program to function properly.

The Kerr-Mills situation in Wayne County has been publicized. There is supposedly a legal limit to the amount a county can pay hospitals or doctors, 70 cents on the cost dollar. That restriction should be removed with some others which make medical payments and hospital payments totally inadequate.

MMS and MSMS Could Salvage a Little

Three very short, but expressive recommendations of the Governor's Commission report make up the material which we believe may express and contain the useful material:

21. "The Commission recommends that Blue Cross, Blue Shield and all other prepayment plans file any requests for rate changes six months in advance of the effective date of change."

22. "The Commission recommends that the hearing or hearings on rate adjustments employ familiar and accepted procedural safeguards."

23. "The Commission recommends that the Commissioner's determination be made and announced in ample time for the applicant or applicants to make necessary bookkeeping and office changes including notices to subscribers."

"The Commission does feel compelled to discuss Kerr-Mills as it currently operates in Michigan. In most of Michigan, this Act appears to be functioning as it was originally intended by Congress. Under Kerr-Mills and the applicable Michigan law, the patient has free choice of physician and hospital. Payments are made by the County to both the physician and the hospital. The Federal Government partially reimburses the State (50 per cent of expenditures) which in turn adds from its own funds (40 per cent of expenditures) and the State reimburses the County 90 per cent of the total cost of services rendered. These services include benefits equal to those of Blue Cross-Blue Shield. Unfortunately, the State did not provide that payments to hospitals and physicians would have to match those of Blue Cross and Blue Shield."

On Tuesday evening, November 20, a story broke in the Michigan papers that Blue Cross and Blue Shield were about to ask for a rate increase. A storm of protest arose from the Insurance Commissioner claiming that he would not even read the material submitted until certain other changes were made. There have been explanations galore, but one fact must be remembered. The last rate increases for both Blue Cross and Blue Shield were under-granted, but specifically for two years. Those two years will be up July 1.

Our experience during the past several years has been that it takes from six to eight months to get one of those requests through. If the two corporations are asking a rate adjustment by the first of next July, they must get it in very soon.

During its existence, Blue Shield went for several year with only one rate increase. About seven years ago, the change came when all these adjustments were made a matter of public hearing and uncontrolled discussion. It remains to be seen what Governor Romney will do. One thing is certain, and the present Commissioner knows it. He cannot change the structure of the Blue Shield Board. That is set by the enabling act

which provides a certain percentage of doctors. There are now eight public members on that board and searching for those eight has been no small task. On the Blue Cross board, six of those members are practicing M.D.'s nominated by the Michigan State Medical Society. A few others are M.D.'s also, but are hospital administrators, 15 M.D.'s altogether out of a 41-member board. The Insurance Commissioner himself, however, is mixed up in these two boards and apparently refuses to consider them except as a single board.

It would be interesting to know what effect it would be upon these two corporations if at any time they were granted the requested adjustment. The last several times Blue Shield, particularly, has taken the best advice it could get from auditors, insurance advisors, coordinators, the best to be obtained in the country who told the MMS board that if the rates requested at that time were granted to take effect at the requested time, they could go for quite a number of years without another change. MMS has not had that experience or a chance to prove it.

Encouraging

Grand Haven Tribune, September 28, 1962

It is encouraging to note that Michigan physicians are promoting a health insurance pool for high risk subscribers, that would be a big boost for certain patients over the age 65 as well as younger patients who need extensive medical care. New York and other states already have such a program. The cost of medical bills must naturally increase as more extensive services are provided and expensive medicines are developed. But just the fact that the medical profession recognizes the tremendous personal burden in certain hardship cases, and is determined to provide all the relief possible, is heartening. It can be an effective answer to those critics who say nothing is being done and that it should be done politically.

Pathology Comment

Laboratory Tests At AMA Meeting

About one-seventh of the 14,000 M.D.'s attending the annual AMA convention last June had clinical pathology tests made at the exhibit laboratory conducted in connection with the "Annual P.E. for every M.D."

Seventeen separate tests, selected for their applicability to health evaluation of men between 30 and 65 years of age, were performed on 2,000 visitors in five days.

Dr. Thomas M. Peery, George Washington University School of Medicine, Washington, D. C., was chief of the planning committee and in charge of 14 supervisors and a technical staff of 30, mostly Registered Medical Technologists. The technologists, though aided by the most advanced instruments and products, had to work a few 12-hour days to turn out the approximately 34,000 answers reported to physicians on the mornings following collection of their specimens. Twenty-five pathologists from Chicago and nearby were on hand in relays to consult with physicians on results of their tests.

The laboratory was sponsored by the AMA Section on Pathology and Physiology. Cooperating in the staffing and financing were the American Society of Clinical Pathologists, College of American Pathologists, American Society of Medical Technologists, Heart Disease Control Program of the U. S. Public Health Service, and manufacturers of equipment and products used.

Tests performed were:

Blood—glucose, cholesterol, uric acid, transaminase, alkaline and acid phosphatase, urea nitrogen, probein, albumin, hematocrit, leukocyte count, sedimentation rate, and serogolical test for syphilis.

Urine—protein, glucose, bilirubin, and occult blood.

Results as recently reported, were: Elevated blood cholesterol was found in 533 (30 per cent) of the physicians tested, elevated uric acid in 632 (36 per cent), and elevated glood glucose in 378 (21 per cent).

Four urinalysis procedures yielded 122 abnormalities, three hematologic procedures also revealed 122 abnormalities, and a serologic test revealed five.

Physician-Patient Relationships

Dear Doctor:

You have submitted for legal opinion a series of questions from one of your members, my answers to which are as follows:

QUESTION NUMBER 1: *When an individual is referred to this office for a neurological consultation and an examination is made, is an implied consent given for the release of that information to the physician or agency who has referred the patient to this office or must all such consents be put in writing?*

ANSWER: I believe this question must be broken into two questions which must be answered separately. When an individual is referred by another physician for neurological consultation, there is implied consent of the patient for the release or exchange of information between the referring and consulting physicians. Where, however, the individual is referred for neurological examination by a non-physician agency, the patient's written consent should be obtained before releasing information to the agency.



LEGAL OPINION 1519

QUESTION NUMBER 2: *Most people these days have insurance coverage or coverage by some agency. We are constantly being sent forms by these agencies or by these companies requesting specific information on various patients and these always ask for specific diagnoses or similar information which has only been gained from seeing and examining these patients. When such a form arrives at this office, is there an implied consent from the patient permitting these to be filled without a signed statement, or is it advisable to have the patient sign for release of any information, whatsoever, concerning his condition, remembering, of course, that even hospitals request a diagnosis on a patient before he is to be admitted and so ad absurdum!*

ANSWER: In my opinion, consent of the patient cannot be implied under the circumstances set forth in this question, and specific consent of the patient should be had before releasing information about his condition.

QUESTION NUMBER 3: *When does the physician-patient relationship terminate in regard to the release of written records that an office such as this has prepared on any patient seen in this office? Does a patient have the legal right, thereafter, to have these records sent out or abstracts made of them whenever they believe it convenient even when there is no possibility of the physician receiving remuneration for his services?*

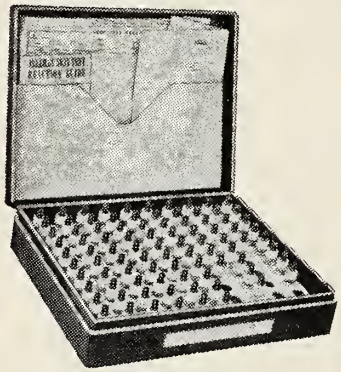
ANSWER: In my opinion, the physician-patient relationship never terminates with respect to release of the patient's records without his consent. I do not believe, however, the patient has the continued right to demand that the physician copy or abstract these records whenever the patient chooses to ask him to do so, and to supply them to others without being reimbursed.

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QUESTION NUMBER 4: *Many patients seen in this office or in one of the hospitals in consultation or for neurosurgical care have insurance coverage and prior to payment of fees, a detailed report is submitted to such companies with the knowledge and consent of the patient. Has an attorney a legal right to block the transmission of such information to an insurance carrier? Furthermore, is it the right of an attorney to receive information authorized by a client who has at one time been a patient of this office or is it a privilege that we can refuse to honor?*

ANSWER: When a patient has been examined and has given consent to furnishing a detailed report to the insurance company, it is my opinion that the physician has a right to submit such a report even over the objection of an attorney unless the physician is prevented from doing so by court order. With respect to the latter part of the question, it is my opinion that when the patient has authorized release of information to his attorney, it should be furnished since the privilege involved is that of the patient and not of the physician.

QUESTION NUMBER 5: *If in the course of our medical practice, we discover that a patient is guilty of action which might result in the serious injury or death of an innocent party, are we forbidden by law to make known such information to the proper authorities? I am speaking specifically of individuals who habitually drive automobiles but are known to us to have severe and uncontrolled epilepsy or individuals who have other neurological conditions such as gross visual field defects which are not always discovered on periodic long-term examinations which are given for renewal of driver's license.*

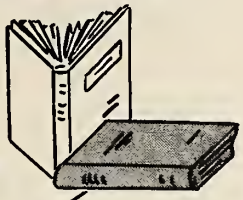
ANSWER: With some reluctance I am forced to the conclusion that the physician does not have the right, under the circumstances outlined in this question, and without consent of the patient, to volunteer information with respect to his condition to others. Michigan has rather strict provisions both in its Medical Practice Act and in its Privileged Communications Statute, and, even though it might be socially desirable for a physician to make such disclosures, at least in some cases, I do not believe that the physician can lawfully do so until the Legislature sees fit to protect the physician in so doing.

Sincerely yours,
LESTER P. DODD
Legal Counsel

(Turn to Page 1522)

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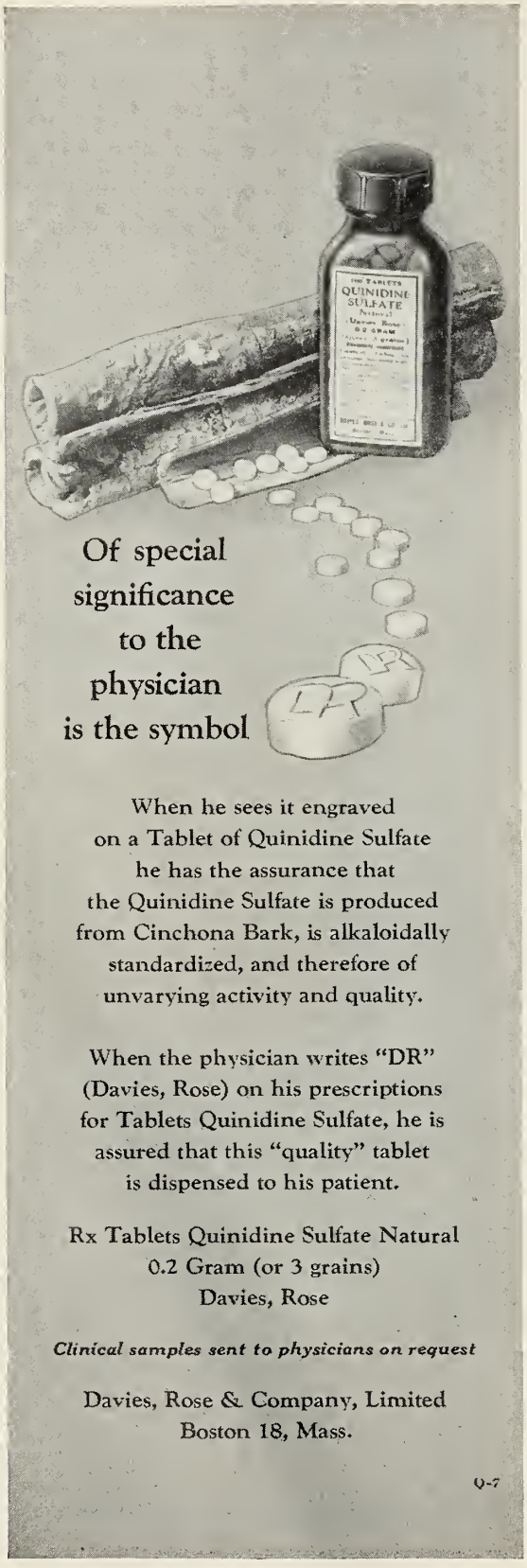
☐ Schmeisser's Orthopedic Traction Techniques, about $5.00.

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.....SJG 12-62



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When the physician writes "DR" (Davies, Rose) on his prescriptions for Tablets Quinidine Sulfate, he is assured that this "quality" tablet is dispensed to his patient.

Rx Tablets Quinidine Sulfate Natural
0.2 Gram (or 3 grains)
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Clinical samples sent to physicians on request

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9-7

Dear Doctor,

Your letter addressed to Michigan State Medical Society has been referred to me for attention and reply.

Your inquiry has to do with whether or not a physician duly licensed in another state may lawfully act as a consultant or engage in surgical procedures in Michigan without being licensed by the State of Michigan.

Section 7 of the Medical Practice Act of Michigan (Sec. 14.537 M.S.A.) provides that any person who shall practice medicine or surgery in this state, * * * and who is not the lawful possessor of a certificate of registration or license under the Michigan Medical Practice Act, shall be deemed guilty of a misdemeanor.

Section 8 of the Act (Sec. 14.538 M.S.A.), however, provides certain exceptions, among them being "regularly licensed physicians and surgeons from out of this state, in actual consultation with physicians and surgeons of this state."

It is my opinion, therefore, that a physician from another state, who is regularly licensed in his own state, may properly and lawfully engage in consultation with physicians and surgeons of this state. It is further my opinion, however, that he may not lawfully engage directly in medical practice in this state but must confine his activities to such as are "in actual consultation with physicians and surgeons of this state."

Sincerely yours,
LESTER P. DODD
Legal Counsel

Ruling Re Hospital Role

Opinion regarding unlawful practice of medicine by hospitals, No. 3197, by Ohio Attorney General McElroy, August 10, covers case of employed physician in hospital emergency room. . . .

Here is syllabus of the opinion: (1) A hospital * * * may not practice medicine. (2) A hospital may maintain an emergency room and may, as a charity, make available in connection with such room the services of a licensed physician; however, when a hospital, in connection with the operation of an emergency room, charges a fee for the professional services of a licensed physician and said physician is paid a salary by the hospital for his services, such hospital is engaged in the unlawful practice of medicine. (3) Said physician, when employed by such hospital under such arrangement, because of the division of professional fees charged for his services, would be guilty of grossly unprofessional and dishonest conduct as described in Section 4731.22, and his medical certificate would be subject to revocation by the State Medical Board.

Say you saw it in the Journal of the Michigan State Medical Society

AMA Disputes Statements Other Countries Are Healthier

Recent statements that citizens of some foreign countries are healthier than Americans is disputed emphatically by the American Medical Association. The AMA clarification was prompted in part by a paper presented at the recent annual meeting of the American Sociological Association in Washington. The paper said that the United States is not as "healthy" as Sweden and England.

"This is like trying to compare apples to oranges," F. J. L. Blasingame, M.D., AMA Executive Vice President, said.

"There have been accounts that comparisons of a nation's overall health can be made on the basis of life expectancy—that the people of Sweden and Britain are healthier because they live longer on the average than Americans.

"This proves nothing, for what you are actually comparing are differences in the makeup of populations. Both of these nations have small, stable, homogeneous populations, whereas that of the United States is a vast mixing from practically every conceivable corner of the globe, including all nationalities and races . . .

"Communicable diseases are almost entirely a medical problem and the fact is that the death rate from communicable diseases in the United States is well below that of England or Sweden," he said.

"As for insinuations that longer life span and lower infant mortality are somehow linked with the socialized medical practices of England and Sweden, there is absolutely no substantiation," he said. "The rate of increase in longevity in England is no different now than it was prior to the founding of the National Health Service there in 1947, and may actually have declined."

The AMA believes that every doctor should know the latest statistics about life expectancy, major causes of death, et cetera.

Life expectancy at birth reached an estimated 70.2 years in the United States in 1961, according to the Public Health Service.

The estimate was based on a 10 per cent sample of death records received by the National Vital Statistics Division from all the 50 states.

Deaths totaled about 1,702,000 in 1961—a rate of 9.3 per 1,000 population, only slightly higher than the record low rate of 9.2 for 1954.

Five of 10 leading causes of death showed sharp rate declines as compared with last year. The declines were large enough to make it improbable that they were produced by normal fluctuations due to sampling. The five were vascular lesions; accidents; influenza and pneumonia, except of newborn; general arteriosclerosis, and diabetes mellitus.

The infant mortality rate of 25.3 per 1,000 live births set a record low, about 2 per cent under the previous low recorded in 1960.



Investigate Boxing Deaths

The British Royal College of Physicians may investigate the medical aspects of boxing. Full cooperation of boxers, managers, and promoters, professional and amateur, is hoped for. Many British doctors favor banning boxing. Their demands were renewed when Benny Paret died from a title fight in the United States, but a bill to ban professional boxing was rejected by the House of Lords.

J. L. Blonstein, M.D., medical officer of the British Amateur Boxing Association, said that since 1946 nine amateur and five professional boxers have died as a result of injuries in the ring in Britain.

Vaccination Efforts Supported

A $36 million three-year program for federal aid for intensive vaccination programs against polio, diphtheria, whooping cough and tetanus was authorized by the recent Congress.

The vaccination campaigns are to be aimed primarily at children less than five years old. The U. S. Surgeon General was given broad authority in deciding the amount and terms of federal grants under the program.

Grants will be made to states or, when approved by state officials, to cities or other local governmental units.

Begin Utah Medical Center

The cornerstone of the $15 million University of Utah Medical Center was laid September 13. Situated on the western slope of the Wasatch Mountains overlooking Salt Lake City and the valley of the Great Salt Lake, the center will be seven stories high, with two levels all or partially underground. The center is scheduled to be completed and functioning by July 1, 1964.

TB Protection Rated Low

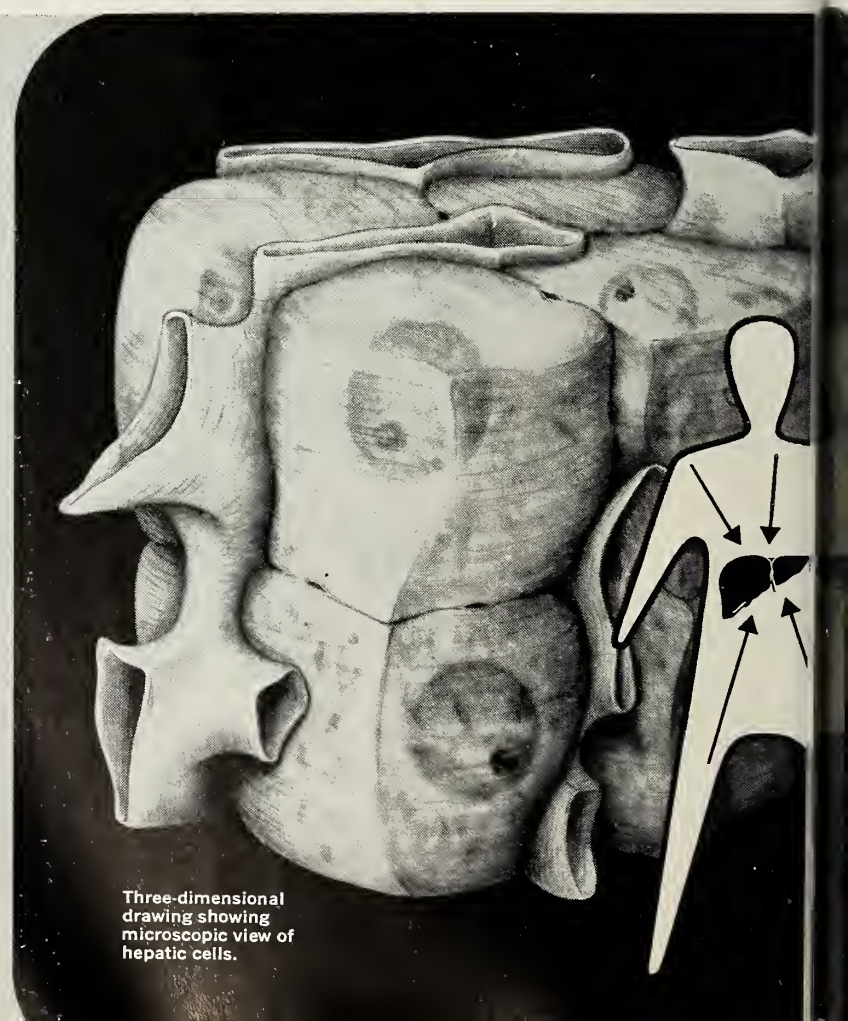
The nation's school children are not receiving uniform tuberculosis protection, a survey by the American School Health Association reports. Only nine states are providing their school children with adequate tuberculosis screening programs which meet the Association's standards.

Plan New Medical School

A new four-year medical school is in the making in Massachusetts. The Bay State legislature has taken the first step by appropriating an initial $2,000,000 for hiring a dean, organizing a faculty and drawing up architectural plans.

when the liver
is threatened or
damaged by fat
in
cirrhosis
alcoholism
hepatitis
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diabetes

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Three-dimensional drawing showing microscopic view of hepatic cells.

Federal Aid Nears $1 Billion

Federal support to medical and health-related research may reach a record of $1 billion in the current fiscal year, according to a report released by U. S. Surgeon General Luther L. Terry, M.D., on September 23.

Tennessee Expands Aged Care Plan

An estimated 2700 persons will receive nursing home care each month under an expanded Medical Assistance to the Aged program in Tennessee. The MAA program, which comes under the Kerr-Mills law, will include up to 90 days of nursing home care each year for those eligible. The expansion may cost up to $2.5 million a year, according to Governor Buford Ellington.

Study Community Health Services

A National Commission on Community Health Services is being formed jointly by the National Health Council and the American Public Health Association, for the purpose of collecting and analyzing information nationally and in selected communities on health service problems, trends and resources, and developing and promoting recommendations for future action.

The four-year, $1,200,000 project is being underwritten by grants from the U. S. Public Health Service and a number of private foundations.

British Health Costs Soar

The cost of running the British National Health Service in 1960-61 went up 11.5 per cent, which Enoch Powell, Britain's Minister of Health, says represents "an unusual increase." Expenditure during the year was $2.3 billion compared with $2 billion in the previous year.

Puerto Rico Plan Broke

A financial crisis is forcing radical changes in Puerto Rico's medical association-sponsored health insurance plan.

Covering more than 100,000 persons in the commonwealth, the plan faces a loss of $1.2 million by the end of this year. A stockholders' meeting—the group is controlled by its 777 physician and 211 dentist members—has voted unanimously to absorb the loss by charging only 20 per cent of regular fees from September through December. August services were free.

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... the original, complete lipotropic formula together with a low fat, moderate protein diet, helps to prevent and treat fatty infiltration and fatty degeneration of the liver, and consequent cirrhosis by helping to...

remove infiltrated fat and thus reduce liver size and tendency to fibrosis

contribute to increased phospholipid turnover and regeneration of new liver cells

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CHOLINE DIHYDROGEN CITRATE*	2.5 Gm.
dl, METHIONINE	1.0 Gm.
INOSITOL	0.75 Gm.
VITAMIN B_{12}	18 mcg.
LIVER CONCENTRATE AND DESICCATED LIVER**	0.78 Gm.

*Present in syrup as 1.14 Gm. Choline Chloride
**Present in syrup as 1.2 Gm. Liver Concentrate

capsules: 100, 250, 500, 1000; **syrup:** 16 oz. and 1 gallon

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IRRITATIVE DIARRHEA, IRRITATIVE URETERITIS,

BLADDER SPASM

*T*rocinate is a musculotropic antispasmodic with no appreciable anticholinergic action. It relieves spasms of the lower bowel and genito-urinary tract by direct action on the contractile mechanism of smooth muscles. The absence of any appreciable action on the autonomic nervous system eliminates the usual side-effects. It may be safely used in glaucoma. Each tablet contains 100 mgs. Trocinate HCl.

USUAL DOSAGE: 2 tablets, 4 times a day. Maintenance dosage is frequently lower.

Dispensed in bottles of 40 and 250 tablets.

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Michigan Association of Professions Congress Soon

One of the featured speakers at the 1963 Congress of the Professions, February 8 and 9 in Lansing, will be Edward R. Annis, M.D., President-Elect of the American Medical Association. He will speak at the MAP President's Dinner Friday night, February 8.

All MSMS members, whether MAP members or not, are invited to attend. MAP officials urge that Michigan professional people mark their calendars now for:

1963 Congress of the Professions
Friday and Saturday, February 8-9, 1963
Jack Tar Hotel, Lansing

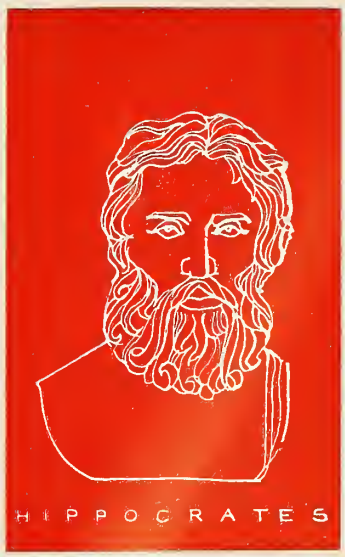
Theme for the Congress is to the point: "Formula for Success." It will be developed by panels, speakers and discussion sessions.

The Congress will start Friday, February 8, with morning public hearings sponsored by the MAP standing committees on Education, Legislation, Public Relations and Business Services. Outstanding experts in each field will testify. The Annual Business Meeting with election of board members and with action on resolutions will be conducted in mid-morning.

The luncheon speaker Friday, February 8, will offer a light touch. Homer H. Stryker, M.D., Kalamazoo, President of the Orthopedic Frame Company, will present a witty talk on his business experiences. The afternoon program will spotlight the president or president-elect of the national association of the eight professions represented in MAP discussing the issue having greatest import to his profession. This will be climaxed by the President's Dinner with Doctor Annis.

The MAP Congress on Saturday, February 9, will focus on "Know Your Government." "How to Build Better Cities" will be the morning topic with four representatives of the professions, accompanied by Howard Stoddard, President of the Michigan National Bank, as panelists. Special guests will be the mayors of Michigan cities and the members of the Michigan Legislature. At the luncheon the audience will judge a debate on the question of whether the proposed Michigan Constitution should be adopted with the top proponents presenting both viewpoints.

The afternoon and evening program, Saturday, February 9, will present representatives from each of the Executive, Judicial and Legislative branches of Government for a program on "The Check and Balance System at Work in State Government." Several Congressmen then will speak on the "Relating of National Issues to Michigan." The Congress will end with the Annual MAP Banquet that night.



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Detroit Thoracic Surgeon Honored

For pioneering improvements in surgery, William M. Tuttle, M.D., of Detroit, was awarded the "Bruce H. Douglas Award for 1962" at a joint meeting of the Michigan Thoracic Society and the Michigan Tuberculosis and Respiratory Disease Association in Flint.



William M. Tuttle, M.D. (right), Detroit, receives plaque from Paul T. Chapman, M.D., Detroit, who made the presentation.

Paul T. Chapman, M.D., Detroit, secretary of the American Thoracic Society, told Doctor Tuttle:

"For a lifetime spent in developing and improving thoracic surgery—surgery which has so favorably influenced the course of tuberculosis among so many patients either directly as a result of your own efforts or indirectly through others whom you have trained or influenced, we offer you our thanks."

The award was the eleventh made annually since its establishment by the Michigan Thoracic Society in honor of Doctor Douglas, commissioner of health for the City of Detroit prior to his untimely death in 1949.

Doctor Tuttle, a graduate of the University of Chicago Medical School, first came to Michigan to take undergraduate work at Hope College, returned in 1935 to Detroit to begin concentrating on the then emerging field of thoracic surgery. He pioneered in lung resectional surgery.

(Turn to Page 1530)



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Soma relieves stiffness —stops pain, too

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, fast!

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

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> Kestler reports in controlled study: *Average time for restoring patients to full activity: with Soma, 11.5 days; without Soma, 41 days.* (*J.A.M.A. Vol. 172, No. 18, April 30, 1960.*)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. **USUAL DOSAGE:** 1 TABLET Q.I.D.

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Urges Civic Service

Raymond Nathan, Special Assistant to the Assistant Secretary of Commerce for Public Affairs, declared at the recent House Magazine Institute, New York City:

"Everyone in modern business, from top management down, is compelled to accept an increased social responsibility for what goes on around him in the world. The 'public be damned' days are gone forever, along with the so-called 'robber barons.' . . . All of us must strive to develop a stronger sense of purpose and pride in our jobs, and play a more active after-hours role in public affairs, as voters and volunteers."

AMA Nursing Views Explained

The program of the AMA Committee on Nursing is based on three general assumptions: (1) that nurses have a separate and distinct professional status and their contributions are those of co-workers; (2) that nursing should expect the medical profession to support and endorse high standards of nursing education and service; and (3) that each of the various levels of academic and technical accomplishment in nursing makes its own unique contribution to the total health care of the public.

On the basis of these broad assumptions, the Committee has adopted the following objectives:

1. To expand and strengthen liaison activities between organizations representing the medical and nursing professions at the national, state, and local levels.

2. To study and report to the medical profession on current practices and trends in nursing and on developments among nursing auxiliary personnel.

3. To stimulate, initiate, and, where feasible, support research in areas pertinent to the nurse-physician relationship in professional practice.

4. To offer advisory services to both professions on interprofessional matters.

5. To provide support and assistance to the nursing profession and its nonprofessional auxiliary personnel in their efforts to maintain high standards.

6. To encourage physicians to accept invitations to serve on nursing school faculties.

If the medical and nursing professions are to make the fullest use of their joint potential, they must have not only a common denominator of interest in the patient and a comparable body of knowledge, but also the kind of relationship that derives from a deeper appreciation of, and respect for, each other as allies working toward the same goals. — Reprinted from JAMA, August 4, 1962.

U-M Conducts First Hospital-Internship Day



Representatives of 37 Michigan hospitals took part in the first "Hospital-Internship Day" held at the University of Michigan Medical Center for the 170 senior medical students. A table was set up for each of the hosptals participating so the seniors could visit with the hospital representatives about interning at their institution.

(Turn to Page 1532)

)NADOXIN®
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ess in 9 out of 10 patients[1]

ly effective in other
ic conditions: postopera-
, following irradiation
dures, infant colic.

BONADOXIN®
ets · Drops · Intramuscular

time-tested for efficacy and safety

1. Groskloss, H.H., Clancy, C.L., Healey, E.F., McCann, W.J., Maloney, F.D., Loritz, A.F.: Clinical Medicine (Sept.) 1955.

Study involving 287 patients. 261 patients experienced excellent to good results with Bonadoxin for relief of nausea and vomiting of pregnancy. No side effects reported.[1]

2. Albertson, H.A., Trout, Jr., H.H., Daily, F.W.: The American Journal of Surgery (Sept.) 1956.

"As a result of this study, it is our belief that the routine prophylactic use of the combination of meclizine hydrochloride and pyridoxine is a safe and effective method for lessening the incidence of postoperative nausea and vomiting. We are employing this preparation as a routine pre-operative medication."[2]

3. Goldsmith, J.W.: Minn. Med. (Feb.) 1957.

Study involving 620 patients, 537 patients experienced moderate to complete improvement of nausea and vomiting of pregnancy with Bonadoxin. Toxicity and intolerance to the medication in the dosage employed in these studies was zero.[3]

4. Codling, J.W.; Lowden, R.J.: Northwest Med. (March) 1958.

Study involving 76 pregnant patients with nausea and vomiting. The results indicated an overall response in 70 of 76 patients treated. No side reactions were observed in this clinical study.[4]

5. Bentley, M.D.: Journal of the Mich. State Med. Soc. (Sept.) 1959.

[Bonadoxin] "was found clinically effective in the prevention of pre-operative and post-operative nausea and emesis in 157 patients who underwent ocular surgery, while control drugs alone could not completely eliminate the symptoms. Bonadoxin did not cause side reactions in the preoperative or postoperative phase of this study."[5]

6. Bethea, R.C.: International Record of Med. (May) 1960.

"Our investigation of this drug indicates that in 88 per cent of the cases satisfactory relief of the distressing symptoms of early pregnancy was obtained without undesirable side effects, including sedation."[6]

7. Sklaroff, D.M.; Karayannis, N.: Current Therapeutic Research (June) 1962.

"Based on these results, indicating 92 per cent effectiveness, meclizine-pyridoxine (Bonadoxin®) may be considered a valuable compound in the control of post-irradiation nausea and vomiting. The preparation proved to be safe and fast-acting in bringing therapeutic relief to carcinoma patients with radiation sickness."[7]



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Honored by Cancer Society



Harry M. Nelson, M.D., Detroit, recently was elected by the American Cancer Society at its 1962 annual meeting in New York City as a Life Member of the American Cancer Society Board of Directors. Doctor Nelson is one of three to be so honored. He has been a leader in the American Cancer Society in Michigan and also the Michigan Cancer Coordinating Committee.

Chosen Leader for 1964



Rosser L. Mainwaring, M.D., Dearborn, is the new President-Elect of the American Association of Blood Banks, chosen at its 15th annual session at Memphis. He will serve in 1964. Merrill James Wicks, M.D., Tacoma, Washington, will be the 1963 President of the American Association of Blood Banks.

It was storming when a Des Moines doctor received a call from a man who said his wife needed medical attention. "I'd be glad to come but I have no transportation," the physician replied, "You would have to come and get me."
"What?", exploded the caller, "In this weather?"

Chairmen Named to Head Woman's Auxiliary Work

Committee work is moving ahead for the Woman's Auxiliary to the Michigan State Medical Society.

Mrs. Ross V. Taylor, Jackson, president of the State Auxiliary, has appointed chairmen for the 1962-63 committee efforts.

Following is the list of Auxiliary committees and their chairmen:

AMA-ERF: Mrs. W. G. Gamble, Jr., Bay City
Archives and Historian: Mrs. E. H. Meisel, Midland
Auxilium Editor: Mrs. F. Mansel Dunn, East Lansing
Bulletin: Mrs. Robert W. Brown, Battle Creek
Civil Defense and Safety: Mrs. R. H. Reitzel, Mt. Clemens
Community Service: Mrs. Milton Weed, Grosse Pointe
Convention: Mrs. Roland R. Benson, Grand Rapids and Mrs. Robert J. Westerhoff, Grand Rapids
Finance: Mrs. F. P. Rhoades, Detroit
Health Career: Mrs. Donald Bolstad, Dearborn
International Health Activities: Mrs. R. Fred Hauer, Fowlerville
Legislation: Mrs. Norbert T. Pasternacki, Detroit
Mental Health: Mrs. Warren S. Wille, Jackson
Nominations: Mrs. Clarence I. Owen, Detroit
Organization and Membership: Mrs. R. J. Himmelberger, Lansing
Press: Mrs. Henry P. Kooistra, Grand Rapids
Program: Mrs. R. H Reitzel, Mt. Clemens
Revisions: Mrs. Clarence Crook, Ann Arbor
Rural Health: Mrs. William C. Heitsch, Lapeer
TB Speaking Project: Mrs. Edwin C. Galsterer, Saginaw



"...emphatic DIETARY REFORM with LITTLE C.N.S. stimulation..."

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*Brand of (*l*-isomer) 1-phenyl-2 aminopropane succinate

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(*l*-isomer) 1-phenyl-2 aminopropane succinate ..... 7 mg.
Each CYDRIL **GRANUCAP**† contains:
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(Releasing the drug over a 6-10 hour period.)

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. . . for MSMS Members and Their Dependents

Cancer Comment

Side Glances at Russian Medicine

By Harry M. Nelson, M.D., Detroit
Chairman of the Committee for the World Wide Fight Against Cancer

It was a cold, dull afternoon in Moscow as our chartered flight "Clipper Conquer Cancer" touched down last July on the weedy, mud-puddled Moscow Airport with its long runways. (This was the first chartered flight to ever enter Russia.)

We were just a few of the 4,500 delegates from 72 countries converging on the Russian capital for the 8th International Cancer Congress, the first ever to be held in Russia. The terminal buildings were small and unattractive but we were warmly greeted by a large welcoming committee, and sped on our way to our hotels. Neither then, nor upon our departure, did the Russians inspect our luggage.

The opening session of the Congress was held at the Kremlin in the recently opened Palace of Congresses, which was, the Vice President of the Soviet Union informed us, the largest and most magnificent building of its kind. He also made the statement, astonishing at the time, there there are 40,000 doctors in Moscow. Afterwards, we adjourned to a reception lavish with food, wine and vodka, and were entertained by a truly remarkable performance by the National Soviet Orchestra and Ballet Company. A more elaborate reception was held in the Palace at the closing meeting.

We attended the scientific sessions of the International Cancer Congress at the University of Moscow, a rambling collection of some 37 buildings overlooking the Moscow River. The main building has a tower of 28 stories. In this building are classrooms, auditoriums, bookshops and libraries. It provides dormitory space for half of the 20,000 students. For their convenience there is a grocery store, a motion picture theatre, a barber shop and several dining halls.

The Russians, who were in attendance at the Congress 1,800 strong, gave a great many papers on fundamental research (virology and chemotherapy) and on clinical studies, and led the discussions on most phases of cancer control. Russia has had peculiar opportunities in cancer research due to its diverse ethnic culture and climate, set in the framework of a controlled society. We gained a good insight into their research and treatment techniques for cancer control.

Six scientific sessions were held simultaneously in large, amphitheatre classrooms, with one general session each afternoon. The number of papers presented was overwhelming to the degree that some truly important and significant work was "lost in the shuffle" for many delegates. Too, although each classroom was equipped with earphones for simultaneous translations in French, English and Russian, they were sometimes inoperable. Another disappointment was the markedly poor quality of the simultaneous translation from Russian into English. These confusions will be cleared, of course, with the publication of the proceedings of the Congress, due within approximately four months.

The sessions were augmented by film showings and excellent exhibits from several countries. The films were not translated and those illustrating various operative techniques were particularly difficult to follow. The quality of the photography was not up to American standards.

Among the exhibits, that of the American Cancer Society enjoyed overwhelming popularity. Society literature was swept clean by the fourth day, and the Russians marveled in great puzzlement at the accomplishments and activities of a voluntary agency. The American publishers had donated copies of all the recent books published on cancer. The Russian scientists are really hungry for new books on cancer, and they studied these with great interest and were eager to obtain copies. Special arrangements had been made with the publishers whereby Russians who wanted the books could order them. While some of these books have been available in Soviet libraries, it has been difficult in the past for the individual doctors to obtain American books because of money exchange problems. Those who ordered books will be sent copies. At the end of the Congress, the remaining books from the exhibit were given to the permanent office of the International Union in Geneva.

We were quite fortunate in having the opportunity to remain on for a few days after the close of the Congress and observe at first hand Russian doctors and Russian medicine in action.

To the visitor of a few short days, Russia can only

From the VIII International Cancer Congress.

(Continued on Page 1538)

In intestinal "grippe"



prompt 4 way check of diarrhea

- Curbs excessive peristalsis
- Adsorbs toxins and gases
- Soothes inflamed mucosa
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Pectin N.F. ..... 225 mg.
Kaolin ..... 3 Gm.
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(equivalent to 2 cc. paregoric)

DOSAGE: Adults: Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

Children: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

SUPPLIED: *Bottles of 16 fl. oz. (raspberry flavor, pink color)*
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Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.



SIDE GLANCES AT RUSSIAN MEDICINE

(Continued from Page 1536)

seem a paradox. Its streets are immaculate; its subways and museums shine with cleanliness. Yet the people are slovenly in dress, with only sporadic attention to neatness. It builds beautiful, modern buildings and allows them to fall into early, ramshackle disrepair. It is a leader in the confounding dynamics of space, and yet at the Ukraine Hotel it was an almost impossible feat to simply phone friends registered in other rooms. Telephoning friends registered at different hotels was hopelessly out of the question. These strange juxtapositions were carried over into the practice of medicine, for we found modern, advanced science in incongruous harness with old fashioned techniques.

All medical research in the Soviet Union is planned, directed and financed under the Ministers of Health and the Academy of Medical Sciences. We have no comparable organizations, and of course, our research is not subject to any authority.

One of the first hospitals we visited was the *Institute of Obstetrics and Gynecology*, one of the centers for graduate training in these sciences. A full-time professional staff of over 100 doctors, many of them women, supervised 360 beds.

In preparing for operative procedure, the surgeons took off their coats, rolled up their sleeves, put on caps and masks, scrubbed, then put on gowns and gloves and proceeded to operate. Their shoes and trousers or dresses, were those worn on the streets. The operative technique was no better than average and two or three operations were performed at the same time, in the same large room.

Labor rooms accommodate 8 to 10 patients, who endured their pain with considerable stoicism. There are no private rooms and uncomplicated labors were delivered in the labor rooms without anesthesia.

Patients having major surgery remained in the hospital for two weeks or longer. They were not ambulatory until the fourth day. Obstetrical patients were hospitalized 10 to 12 days. The long hospital stay is probably due to the inadequate housing. Most of the people live in one- or two-room apartments and share baths and kitchens.

There did not seem to be any large central laboratories, but doctors were working in electrocardiography, encephalography, sonic wave research and laboratory procedures in small rooms scattered throughout the hospital.

This Research Institute of Obstetrics and Gynecology Ministry of Health is the Central Institute of the Russian Federation and has clinical branches in four Moscow maternity homes with 600 beds. Under the general heading of "Protection of the Health of Women, Mothers, and Newborn," the Scientific Medical Council of the Ministry of Health directs the Institute in studies of the organization of district gynecological consulting centers, maternal morbidity and mortality, fetal mortality, the role of industrial factors in cases of premature deliveries, and the effect of industrial working conditions upon the incidence of gynecological disease in women. A study of sterility in women places the emphasis upon endocrine disturbances, and among these, special attention is given to the disorders of the menopause.

The staff of the Institute conducts mass prophylactic examinations of well women, approximately 30,000 annually, with a view to the early detection of gynecological diseases. There is some question as to extent and completeness of these periodic well person examinations.

The Institute of Clinical Experimental Oncology is one of the leading research institutes in Soviet Russia, under the direction of Dr. N. N. Blokin. Patients are treated at the Institute's hospital with "new methods of treatment which have proved effective." Over a hundred scientists on the staff work in biology, chemotherapy, tissue culture, immunology, hormone therapy, etiology of cancer, and so forth. A few patients have been treated with sarcollen, a chemotherapeutic drug developed by the Institute, and many of the other alkalating agencies are also used. Like our chemotherapeutic agents and hormones, many of them give palliation, but none cure. For advanced cases, they use combinations of surgery, chemotherapy and radiotherapy.

One of the largest hospitals for first aid and treatment is the *Emergency Hospital*, with 1,000 beds and a staff of 250 doctors. The surgeons are excellent technicians, and some of them perform from 10 to 20 operations a day. This institute was the first to use cadaver blood. Two to three litres of blood are drawn within six hours of death from bodies showing no chronic or infectious disease. The greater precentage of all transfusions are given with this blood. Law requires that an autopsy be performed on all cadavers.

The Scientific Research Institute for Experimental Surgical Apparatus and Instruments of the U.S.S.R. Ministry of Health was founded in 1951 and now has a staff of over 100. Engineers, physicians and scientists of various specialties work in close cooperation to produce special instruments for all fields of surgery, particularly instruments for mechanizing complicated surgical procedures. The Institute has designed some 20 stapling guns of various shapes and sizes for special surgical procedures, and other devices for suturing blood vessels, bronchi, intestines and nerves. We also saw equipment for hemodialysis and perfusions. Many

(Continued on Page 1540)



The good life–just what the doctor ordered

and sun are both in his doctor's or- — so is that grapefruit he's eating such gusto. Citrus fruit is a wonder- ay for this patient or any patient to is daily quota of vitamin C . . . to something good to eat, tasty and ying but not rich.

ot all patients are so lucky as to retired to Florida, where they can each out to pick citrus fruit off their orange and grapefruit trees. But any nt anywhere can get the same bene- fits of the natural vitamin C in Florida oranges, grapefruit, and tangerines . . . thanks to modern methods of processing fresh fruit. Whether it is frozen, canned, or in cartons, 98% of the vitamin C content of the fruit is preserved.

Grapefruit and other citrus fruits filled with vitamin C are valuable in the nutrition of every age group. Among the teen-agers, vitamin C is one of the two nutrients most often low in the diet. Infants, too, need generous amounts of vitamin C; and they will take it readily when it comes to them in the form of delicious orange juice.

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SIDE GLANCES AT RUSSIAN MEDICINE

(Continued from Page 1538)

of these instruments are now for sale, and a catalog, written in English, French and Russian was distributed to the visitors.

The Institute maintains a large number of laboratories and technological and medical departments including physiological clinics and biochemical laboratories. There is also a department of experimental surgery, including an animal house. The Institute uses the surgical department of City Hospital No. 40 located nearby as its clinical base.

While the Russians are engineering and developing complicated surgical instruments and making advances in surgical techniques and research, they still cling to old and obsolete methods. They do not practice the early ambulation and shortened postoperative hospitalization that is found so beneficial to patients here in the United States. Operating room procedures and dress do not meet our modern standards of sterility. Physically, most hospitals are dreary and in bad repair, a cheerless surrounding for the convalescent. Generally, scant attention is given to the comfort and privacy of patients, particularly of women in obstetrics.

Interns and residents of Russian hospitals have not received the equivalent of a broad college education. There is little emphasis on cultural subjects. The Russians concentrate on specialized activity and those with special talents are given selected training education. As a result, many of those who have earned the title "doctor" seem to be doing the work of our medical technologists. This perhaps explains the Soviet Vice President's amazing statistic of 40,000 doctors in Moscow, or one for every 125 people. Under our definition of medical education, many of these men would be classified as technicians. Their engineering and instrumental skills is perhaps making them more dependent on mechanical devices for the diagnoses and treatment of many diseases.

Their "professors" and "chiefs" on hospital staffs are comparable to our leaders in medicine, but in general the others are inferior in depth and scope of knowledge.

We were granted every courtesy and consideration during our stay in Moscow, and often the badges we wore everywhere (and indeed, were instructed to wear everywhere) identifying us as delegates to the International Cancer Congress were our entree to the museums, the cultural exhibits, schools and medical facilities. But while we were received graciously, we were still conscious of many "iron curtains" shielding many aspects of Soviet life, and our opportunities for travel and observations were by no means unlimited.

The language barrier proved formidable. One guest at our hotel had a melancholy experience. The Russians persisted in serving eggs ordered as "boiled," completely uncooked. One morning, this guest pointed to her egg and held up five fingers: "Five minutes," she said, valiantly pantomiming, "Five minutes." In a few moments she was served with five uncooked eggs.

The 8th International Cancer Congress was held under the auspices of the International Union Against Cancer. The Union's objective is to promote international cooperation in the fight against cancer in three major areas: research, therapy, and control. It strives to accomplish this objective by (a) facilitating the exchange of information between national organizations; (b) holding international cancer congresses and symposia; (c) publishing an international journal to keep its members informed of its activities; (d) stimulating and encouraging national efforts in research, therapy and control; (e) establishing working groups for such problems as tumor nomenclature and clinical staging.

The present commissions of the union are: (a) Commission on Cancer Research, concerned with scientific research; (b) Commission on Cancer Control, concerned with clinical medicine, therapy and the public campaign against cancer. The International Union is affiliated with the World Health Organization (WHO) and with the Council for International Organizations of Medical Sciences. It is the only international, non-governmental organization devoted solely to the campaign against cancer, and as an affiliated member of the World Health Organization, has the opportunity to participate actively in and influence the development and execution of internal efforts in support of the campaign against cancer.

The International Union Against Cancer has recently established an international fellowship program through which outstanding young men are given an opportunity to continue research in the country of their choice. This year, an additional eleven young men are studying in six countries under fellowships awarded by the Union. There are now a total of thirty-four fellowships which were made from grants from the Eleanor Roosevelt Cancer Foundation, an affiliate of the American Cancer Society.

On July 1, 1961, the International Union Against Cancer opened an office in Geneva, Switzerland, under the directorship of Dr. J. W. Delafresnaye, formerly executive secretary of the Council for International Organizations of Medical Sciences. This office will not only provide full time professional assistance in the development and execution of the IUAC, but the availability of a full-time secretariate will make possible an expansion of its activities. The International Cancer Congresses of the IUAC are held every four years.



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MICHIGAN DEPARTMENT OF HEALTH
ALBERT E. HEUSTIS M.D., State Health Commissioner

Rabies Examinations

Demands for examinations for rabies on the Division of Laboratories of the Michigan Department of Health have increased to the point where it is necessary to require much closer medical screening of specimens submitted. Therefore, we are establishing the following priorities for animal *heads*. These priorities will be rigidly adhered to by our laboratory. Only specimens in the following categories will be accepted for rabies examination:

1. Human exposure as determined by a physician.
2. Animal exposure as determined by a physician or veterinarian; then only when necessary to establish legal basis for destruction of the exposed animal.
3. Those specimens of special interest to the Department of Conservation.
4. Except for bats *animal heads only* will be accepted. Do not send or bring an entire carcass to the laboratory.

Recommended Policy on Tetanus Immunization in Industry

The following policy is recommended by the Michigan Department of Health for adoption by industries in Michigan. In order to provide each employee with the opportunity to recover as speedily as he can from any injury he might sustain, and with as little inconvenience as possible, the medical department of each industry should make active immunization against tetanus available to each employee on a voluntary basis. A practical way of implementing this recommendation is to start with the new employee, gradually extending the opportunity for immunization against tetanus to those returning from sick leave, those having annual or special medical examinations, those coming to the medical department for any reason.

The recommended dosage for "tetanus toxoid aluminum phosphate adsorbed" is as follows:

(a) For basic immunization, two intramuscular injections of 0.5 ml of tetanus toxoid given four to six weeks apart, followed by a similar reinforcing dose after six to 12 months, and maintained by giving a routine booster dose of 0.2 ml (2Lf) every five years.

(b) Persons presenting a history of previous active immunization against tetanus must be individually evaluated by the industrial physician. If their basic series consisted of two injections of tetanus toxoid followed by a reinforcing dose, and not more than five years have elapsed since the reinforcing dose or a further booster injection, a dose of 0.2 ml is recommended for a routine booster. If more than five years have elapsed or the basic series is in the physician's opinion indequate, a 0.5 ml booster dose should be administered in the same manner as the reinforcing dose above.

When other products are used, the advice of the manufacturer should be followed.

Hospital Infections

The following sets the procedure for coordinating services within the Michigan Department of Health to give assistance to hospitals in the investigation and control of infections.

1. The first visit to follow up on a request for consultation with reference to infections will be made by the Director of the Division of Epidemiology, or his designated representative.
2. Since each situation is likely to differ, the procedure to be followed will be determined at the time of the first visit.
3. Other department personnel involved will be directly responsible to the Director of the Division of Epidemiology and available on his request.
4. All reports, findings, and recommendations will clear through the Director of the Divsion of Epidemiology before release.
5. The Director of the Divsion of Epidemiology will keep all interested persons involved informed as early as convenient.
6. Requests will be honored from the hospital, hospital medical staff, or staff member of the Section of Hospital Consultation and Licensing, and the local health department. If the request originates with the hospital, the local health departments will be informed.
7. All releases of information to the public will ordinarily be the sole responsibility of the hospital administrator. Exceptions to this policy will be made only by the State Health Commissioner.

The following will participate in the investigation and control of reported infections:

Division of Epideiology
Division Director of his designated representative
Division of Material and Child Healthl
Chief of the Hospital Consultation and Licensing and Section Nursing Consultants
Sanitary Engineers assigned to this Section from the Division of Engineering
Division of Laboratories
Coordinating Physician and bacteriologists

Physicians in Action

SPEAKER—Charles J. Tupper, M.D., Ann Arbor, addressed the ninth annual conference of 200 Michigan hospital administrators on "Hospital Financial Management" at the University of Michigan.

* * *

LEADER—Howard T. Knobloch, M.D., Bay City, is president of the Bay County Unit of the Michigan Heart Association. The Unit recently sponsored a Cardiac Workshop using several area doctors on the program.

* * *

ON PROGRAMS—W. L. Howard, M.D., Northville, and Paul T. Chapman, M.D., Detroit, were among the participants on the program of the Mississippi Valley Thoracic Society and Conference on Tuberculosis in Indianapolis recently.

* * *

ELECTED—Donald J. Jaffar, M.D., Detroit, is the new president-elect of the North Central Section of the American Urological Association. He also was appointed to the executive committee of the AUA as a sectional representative.

* * *

OUTLINES PLANS—Detroit plans for a $1,500,000 federal grant for a program aimed at rehabilitating narcotic addicts were discussed by Herbert A. Raskin, M.D., of Detroit, at House Conference on Narcotics and Drug Abuse.

Doctor Raskin, representing the Detroit Mayor's Committee for the Rehabilitation of Narcotic Addicts, said Detroit's approach to this problem will include the following steps: (1) A 16-bed in-patient facility will be established at Herman Kiefer Hospital. The United Foundation and the Detroit Board of Health have pledged $10,000 to operate this phase of the over-all program; (2) An out-patient clinic at the hospital that will be financed by federal funds—$300,000 a year for five years, and (3) Revised commitment procedures that will allow patients "convalescent leave" from the narcotics hospital, but will keep them under supervision of the clinic for at least a year.

* * *

IN ART SHOW—The prize winning paintings by William C. Behen, M.D., Lansing, were among those in the collection in the Physicians Arts Association of the AMA. The exhibit was held in Chicago June 24-28. Two of the pictures—"Painting the Light House on Beaver Island" and "The Light House on Beaver Island"—will be sent to principal cities as a benefit for the Salk Institute.

* * *

APPOINTED—Stuart M. Finch, M.D., Ann Arbor, was recently appointed to the national governing board of the Planned Parenthood Federation of America. Dr. Finch has been active with the Federation's Washtenaw County League for many years.



OFFER AMA BOOKLET—The Department of Medical Service of the American Medical Association has just published and made available to members a forty-page study of the various types of medical practice with especial reference to group practice. It discusses the many and varied forms of group practice as now functioning. Further information from A.M.A., 535 N. Dearborn St., Chicago, 10, Ill.

* * *

NEW MEDICAL JOURNAL—*Clinical Pediatrics* is the title of a new medical journal, published by J. B. Lippincott Company.

* * *

HONORED—The chairman of the Selective Service Board in Calhoun County recently gave certificates of appreciation for more than 20 years on Selective Service Board to Lloyd Verity, M.D., R. H. Baribeau, M.D., and Edwin L. Hansen, M.D., all of Battle Creek. The presentations were made by Frank S. Boies, chairman.

* * *

EXAMS SOON—The American Board of Preventive Medicine will hold its next examination for Certification in Occupational Medicine March 16, 17 and 18 at the Sheraton-Park Hotel in Washington, D. C., preceding the annual meeting of the Industrial Medical Association there March 18-21. Applications should be sent to Tom F. Whayne, M.D., Secretary-Treasurer, American Board of Preventive Medicine, 4219 Chester Ave., Philadelphia 4.

* * *

HELPS YOUNG WRITERS—A press conference for high school newspaper editors on "Cigarettes and Lung Cancer" was held recently by the American Cancer Society, Southeastern Michigan Division. Arthur J. Vorwald, M.D., Detroit, chairman of the Division's board of directors, was the moderator.

* * *

OFFERS AWARDS—The Council on Undergraduate Medical Education of the American College of Chest Physicians offers three cash awards for the best contribution prepared by undergraduate medical students on any phase of the diagnosis and/or treatment of chest diseases (heart or lungs). Application form and additional information may be secured by writing Murray Kornfeld, Executive Director, American College of Chest Physicians, 112 E. Chestnut, Chicago 11.

* * *

SPEAKER—Robert C. Horn, Jr., M.D., Detroit, will speak at the 27th annual session of the International Medical Assembly of Southwest Texas, in San Antonio, January 28-30. Major topics will include cancer, radiology, pathology of outer space, etc.

* * *

HONORED—Walter Larson, M.D., Cheboygan, was honored recently for 20 years of service on the staff of the Community Memorial Hospital. Doctor Larson formerly practiced at Levering.

* * *

ON MNHA PROGRAM—The fall conference of the Michigan Nursing Home Association featured two doctors of medicine. Homer Stryker, M.D., Kalamazoo, gave his witty talk "So You Want to Go Into Business for Yourself" and Ira M. Altschuler, M.D., Southfield, discussed "Neuropsychiatric Considerations of Music Therapy in Geriatrics." The Michigan Health Council co-sponsored the event, held at Kellogg Center. Herbert A. Auer of the MSMS executive office moderated a panel on the financing of nursing homes.

U-M HONORS TWO—Two doctors of medicine were among the 10 faculty members recently honored by the University of Michigan. A "Distinguished Faculty Achievement Award" and $1,000 were presented to Carl E. Badgley, M.D., Ann Arbor. John R. G. Gosling, M.D., Ann Arbor, received the $750 Henry Russell Award.

MEETINGS USA

February

American Academy of Occupational Medicine, Sheraton-Lincoln, Indianapolis, Feb. 6-8. Gordon M. Hemmet, M.D., Eastman Kodak Co., 343 State, Rochester 4, N. Y., Secretary.

American College of Cardiology, Ambassador Hotel, Los Angeles, Feb. 28-March 4.

American College of Radiology, Drake Hotel, Chicago, Feb. 6-9.

American Society of Clinical Pathologists, New Orleans, Feb. 14-16. Miss Eleanor F. Larson, 445 N. Lake Shore, Chicago, 11, Exec. Secretary.

College of American Pathologists, Rice Hotel, Houston, Feb. 28-March 3. Ernest E. Sunard, Box 136, Salinas, Calif.

Congress on Medical Education, Palmer House, Chicago, Feb. 2-6. Walter S. Wiggin, M.D., 535 N. Dearborn, Chicago 10, Secretary.

March

American Academy of Allergy, The Queen Elizabeth, Montreal, Quebec, March 12-14. Paul M. Seebohm, M.D., University Hospital, Iowa City, Secretary.

American Academy of General Practice, Chicago, March 29-April 5. Mac F. Cahal, J.D., Volker Blvd. at Brookside, Kansas City 12, Exec. Dir.

American College of Allergists, The Americana, New York, March 17-22. D. Joseph Parsons, M.D., 1405 E. High, Springfield, Ohio.

American Industrial Health Conference, Washington, D. C., March 18-21. Write to 55 East Washington, Chicago 2 (includes Industrial Medical Asso. Annual Meeting).

American Medicolegal Symposium, American Hotel in Miami Beach, Florida, March 8-9. Write C. Joseph Stetler, AMA, for details.

American Society of Internal Medicine, Brown Palace, Denver, March 29-31. Mr. Albert Whitehall, 3410 Geary Blvd., San Francisco 18, Exec. Dir.

April

Aerospace Medical Association, Statler-Hilton, Los Angeles, April 29-May 2. William Kennard, M.D., Aerospace Medical Association, National Airport, Washington, D. C.

American Academy of Neurology, Leamington Hotel, Minneapolis, 17, April 22-27. Charles A. Kane, M.D., 80 E. Concord, Boston.

American Association of Pathologists and Bacteriologists,

(Continued on Page 1550)

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(Continued from Page 1548)

Netherlands Hilton, Cincinnati, April 26-28. John R. Carter, University of Kansas Medical Center, Kansas City 3.

American Association for Thoracic Surgery, Shamrock Hilton, Houston, April 8-10. Henry T. Bahnson, M.D., The Johns Hopkins Hospital, Baltimore 5.

American College Health Association, Muehlebach Hotel, Kansas City, April 23-26. Ruth E. Boynton, M.D., 5513 Merrick Dr., Coral Gables 46, Florida.

American College of Obstetricians and Gynecologists, Statler Hilton, New York, April 21-24. Graig W. Muckle, 1806 Garrett Rd., Landsdowne, Pa.

American College of Physicians, Denver-Hilton, April 1-5, Denver. Edward C. Rosenow, Jr., M.D., 4200 Pine St., Philadelphia 4.

American Dermatological Association, Hot Springs, Va., The Homestead, April 15-18. Wiley M. Sams, 308 Ingraham Bldg., Miami 32.

American Otological Society, Hollywood Beach Hotel, Hollywood, Fla., April 26-27. James A. Moore, 535 E. 68th St., New York 21.

American Physiological Society, Ambassador, Atlantic City, N. J., April 16-20. R. G. Daggs, 9650 Wisconsin, Washington 14, D. C.

American Radium Society, Mark Hopkins Hotel, San Francisco, April 1-4. Justin J. Stein, M.D., University of California, Los Angeles.

American Surgical Association, Westward Ho Hotel, Phoenix, April 3-5. W. A. Altemeier, Cincinnati General Hospital, Cincinnati 29.

Association of American Physicians, Chalfonte-Haddon Hall, Atlantic City, April 30-May 1. Eugene A. Stead, Jr., Duke Hospital, Durham, North Carolina.

International College of Surgeons, North American Federation Congress, Ambassador Hotel, Los Angeles, April 21-25. Horace E. Turner, M.D., 1516 Lake Shore Drive, Chicago 10, Secretary-General.

Iowa Medical Society, Savery Hotel, Des Moines, April 21-24. Mr. D. L. Taylor, 529 36th St., Des Moines 12.

May

American Gynecological Society, Roosevelt Hotel, New Orleans, May 13-15. C. J. Lund, 260 Crittenden Blvd., Rochester, N. Y.

American Ophthalmological Society, The Homestead, Hot Springs, Va., May 27-29. Joseph Wadsworth, M.D., 108 East 68th St., New York 21.

American Pediatric Society, Seaside Hotel, Atlantic City, May 3-4. Conrad M. Riley, 2800 E. Cedar, Denver 9.

American Proctologic Society, St. Francis Hotel, San Francisco, May 20-23. Norman D. Nigro, M.D., 7815 E. Jefferson, Detroit 14.

American Psychiatric Association, Chase Park Plaaz, St. Louis, May 6-10. Harvey J. Tompkins, 144 W. 12th St., New York 11.

American Thoracic Society, Denver-Hilton, Denver, May 13-15. Frank W. Webster, 1790 Broadway, New York 19.

American Urological Association, Hotel Sheraton-Jefferson, St. Louis, May 13-16. William P. Didusch, 1120 N. Charles, Baltimore 1.

Michigan Authors

Charles H. Frantz, M.D., and George T. Aitken, M.D., Grand Rapids, "The Thalidomide Tragedy: Moral Aspects", *Illinois Medical Journal*, September, 1962.

Charles E. Payne, M.D., Benton Harbor, "The Outpatient Treatment of Depression", *American Practitioner*, September, 1962.

Darrell A. Campbell, M.D., Ann Arbor, "Mammary Cancer", *Nebraska State Medical Journal*, October, 1962.

Irving Feller, M.D. and **M. S. DeWeese, M.D.,** Ann Arbor, "A Reappraisal of Fluid Therapy in the Burned Patient", *Journal American Medical Association*, August 4, 1962.

George D. Zuidema, M.D., Ann Arbor, and **George L. Nardi, M.D.,** Boston, "Acute Pneumocholecystitis," *Journal American Medical Association*, August 4, 1962.

Peter A. Martin, M.D. and **H. Waldo Bird, M.D.,** Detroit, "One Type of the 'In-Search-of-a-Mother' Marital Patterns", *The Psychiatric Quarterly*, April, 1962.

M. K. Newman, M.D., Detroit, "Clinical Study of Pain, Electromyographic Observations in Trauma and Controlled Subjects; Correlation with Plethysmographic and Skin Resistance Studies", *Legal Medicine and Medical-Legal Trial Techniques*, August, 1962. Compiled by Hubert Winston Smith, M.D.

M. K. Newman, M.D., Detroit, "Physical Medicine and Rehabilitation in Law-Science; Its Value in Personal Injury Problems and Medical-Legal Trial Techniques", *Insurance Counsel Journal of the International Association of Insurance Counsel*, July, 1962.

Harry M. Nelson, M.D., and **James R. Hagerty, M.D.,** Detroit, "Endolymphatic Stromal Myosis", Report of two cases and review of the literature, *Obstetrics and Gynecology*, August, 1962.

Isidore Selzer, M.D., and **Harry M. Nelson, M.D.,** Detroit, "Benign Papilloma (Polypoid Tumor of the Cervix Uteri in Children", *American Journal of Obstetrics and Gynecology*, July 15, 1962.

T. L. Jarkowski, M.D., and **P. L. Wolf, M.D.,** Detroit, "Unusual Gas Bacillus Infections", *Journal American Medical Association*, September 8, 1962.

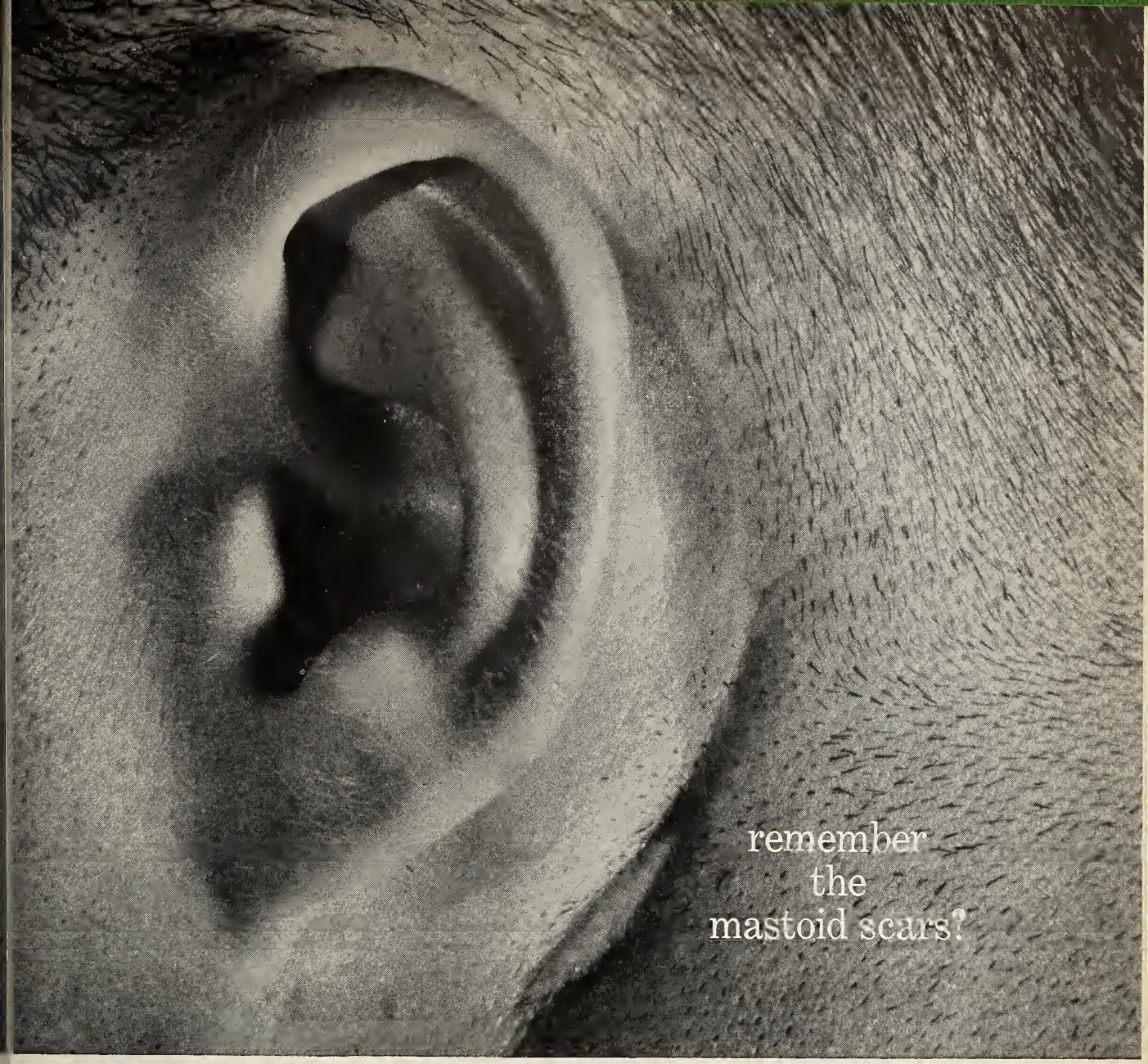
R. J. Bing, M.D., and **Herminio Ramos, M.D.,** Detroit, "The Role of the Heart in Shock".

F. M. Davenport, M.D., Ann Arbor, "Current Knowledge of Influenza Vaccine", *Journal American Medical Association*, October 6, 1962.

Traian Leucutia, M.D., Detroit, "Ionizing Radiations in our Era", *Journal American Medical Association*, October 6, 1962.

John M. Dorsey, M.D., Detroit, "Vis Medicatrix Naturae", *Journal American Osteopathic Association*, August, 1962. Reprinted from *Journal of Michigan State Medical Society*, January 1961, by permission of the author and the publisher.

R. H. Nishiyama, M.D., R. W. Schmidt, M.D., and **J. G. Batsakis, M.D.,** Ann Arbor, "Carcinoma of the Thyroid Gland in Children and Adolescents", *Journal American Medical Association*, September 12, 1962.



And even these were the fortunate ones, despite the fact that they were to carry a disfigurement for life. Many died. Particularly if meningitis had set in before surgery...

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Yet, the value of independent drug research has been seriously challenged – research which has produced the chemotherapeutic compounds which make the *cure* of mastoiditis practically a routine, not even a worrisome, procedure. True, the cost may run as high as $15.00. Yet, ask the man who paid $1,000.00 for his mastoid scar which he would have preferred – if he had had the choice.

*Asherson, N., "Acute Otitis and Mastoiditis in General Practice," H. K. Lewis & Co., Ltd., London, 1934.

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IN MEMORIAM

HARRY B. ZEMMER, M.D., Lapeer, surgeon and former Vice Chairman of the MSMS Council, died November 11, 1962, at the Methodist Hospital of the Mayo Clinic, Rochester, Minn. He was 68 years old.



H. B. Zemmer, M.D.

Doctor Zemmer contributed much to medical organizations. He served many years as MSMS Councilor from his Councilor District. He also was a former president of his own Lapeer County Medical Society and was active in such Lapeer organizations as the Rotary Club and others. At the time of his death, he was a member of the Michigan Commission on Aging. Among the other official state positions he had held was the chairmanship of the State Hospital Commission.

He was well known as President Emeritus of the Michigan Health Council and was instrumental in many early projects of the Council.

A graduate of the Detroit College of Medicine and Surgery, he had studied at many American medical schools and also in Switzerland and Germany. He served in World War I, from 1917-21.

WARREN B. CRANE, M.D., 49, Kalamazoo physician since 1938, died September 15, 1962.

A native of Kalamazoo, Doctor Crane received his medical degree from the University of Chicago in 1937. He served in the Army Medical Corps during World War II, attaining the rank of captain.

ROBERT H. DENHAM, M.D., 75, Grand Rapids surgeon, died October 6, 1962.

Doctor Denham, a graduate of Vanderbilt University, specialized in industrial and orthopedic surgery. He served with the Army Medical Corps in World War I, coming to Grand Rapids in 1919.

He was a past president of the Kent County Medical Society, and a member of the American College of Surgeons. He was on the staff of Butterworth and Blodgett Hospital and was a former chief of staff of Blodgett Hospital.

WILLIAM L. FOUST, M.D., 67, Grass Lake practitioner for 37 years, died September 9, 1962.

A graduate of the University of Michigan Medical School in 1924, Doctor Foust interned at Foote Hospital, Jackson, and began his practice in Grass Lake in 1925. Doctor Foust served with the 77th Division of the Field Artillery in World War I.

CLARKE B. FULKERSON, M.D., 87, Kalamazoo physician since 1902, died October 9, 1962.

A 1902 graduate of the University of Michigan Medical School, Doctor Fulkerson was a specialist in eye, ear, nose and throat diseases. He was a Fellow of the American College of Surgeons and a past president of the Kalamazoo Academy of Medicine. Memberships include the American Academy of Ophthalmology and Otolaryngology, and the Southwestern Michigan Triological Society. He was a life member of the Michigan State Medical Society.

WALTER E. GREEN, M.D., 70, Detroit, recognized expert on medical treatment for alcoholism, died September 29, 1962.

A graduate of the Detroit College of Medicine, Doctor Green established his practice in Detroit in 1922. As medical director of the Greater Detroit Commission on Alcoholism, he made frequent appearances on radio and television programs dealing with the problem. A member of the Livingston County Medical Society, he was a former medical director of Brighton Hospital.

CHARLES R. SMITH, M.D., 69, Hancock physician, died September 28, 1962.

Doctor Smith received his medical degree from Harvard University in 1927, and interned at Western Pennsylvania Hospital, Pittsburgh. He went to Maybury Sanitarium, Northville, Michigan, as a resident in 1929 and remained for 10 years. Following this, he served as medical director of the Copper County Sanitarium for 20 years. Doctor Smith retired in 1959.

He was a member and past president of the Michigan Branch, American Thoracic Society, and a past president of the Houghton-Baraga-Keweenaw Medical Society. He was a Retired Member of the Michigan State Medical Society.

R. A. C. WOLLENBERG, M.D., 81, Detroit dermatologist since 1906, died September 16, 1962.

A graduate of Georgetown University Medical School in 1905, he interned at Detroit Marine Hospital and was an assistant surgeon for the U.S. Public Health Service for four years. He served as a captain in the U.S. Medical Corps.

Retired for the last two years, Doctor Wollenberg had a private practice in Detroit for 44 years before giving it up three years ago to take a job as medical officer on the Veterans Administration's regional rating board.

He was a consulting dermatologist at Wayne County General Hospital, Veterans Hospital, Alexander Blain Hospital and the U.S. Marine Hospital. He was attending dermatologist at Providence and Mt. Carmel Mercy Hospitals.

Doctor Wollenberg was a Life Member of the Michigan State Medical Society.

The Doctor's Library

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

CLASSICS OF CARDIOLOGY (Former title: Cardiac Classics). A Collection Of Classic Works on the Heart and Circulation with Comprehensive Biographic Accounts of the Authors. Fifty-two contributions by fifty-one authors. By Frederick A. Willius, M.D., M.S. in Med., former Chief, Section of Cardiology, Professor Emeritus of Medicine, The Mayo Foundation for Medical Education and Research; The Graduate School, The University of Minnesota, and Thomas E. Keys, A.B., M.A., Librarian, The Mayo Clinic; Assistant Professor of the History of Medicine, Mayo Foundation for Medical Education and Research, The Graduate School, The University of Minnesota. Volume One. Henry Schuman, Inc. New York: Dover Publications, Inc., 1962. Price, $2.00.

This is a two-volume work in paper cover, which most physicians will enjoy reading. The current volume of medical literature permits little time for reading the older classics, many of which are inaccessible, which deters many from digging them out. Here, in two small volumes, are the basic, important ones, in the field of Cardiology beginning with William Harvey and ending with Oliver Wendell Holmes. The classics are presented in their chronological order and are prefaced by biography of the Author.

The present paper edition was first published in 1961 at popular prices, and is a complete and unabridged edition of the original, copyrighted in 1941 by Willius and Keys of the Mayo Clinic.

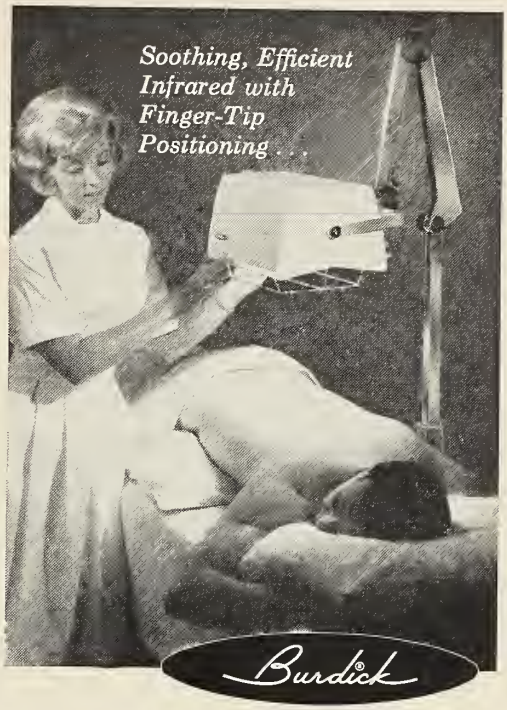
ROBERT W. BROWN, M.D.

PRIMER OF CLINICAL MEASUREMENT OF BLOOD PRESSURE. By George E. Burch, M.D., Henderson Professor of Medicine, Tulane University School of Medicine, New Orleans, La.; Physician-in-Chief in Medicine, Tulane Unit of the Charity Hospital of New Orleans, New Orleans, La.; Consultant in Medicine and Cardiology, Veterans Administration Hospital, Touro Infirmary, Hotel Dieu Hospital, Mercy Hospital, and Ochsner Foundation Hospital, New Orleans, La., and Nicholas P. DePasquale, M.D., Instructor in Medicine, Tulane University School of Medicine, New Orleans, La.; Visiting Physician, Tulane Unit of the Charity Hospital, New Orleans. La. Illustrated. St. Louis: The C. V. Mosby Company, 1962. Price, $5.50.

This is a short, interesting monograph on the proper recording of blood pressure, problems and considerations involved, particularly stressing accuracy in technique thereof. A study of the sources of error in the usual clinical determination has been made. A history of recording instruments is presented as well as an evaluation of the factors affecting blood pressure and presentation of normal values and diagnostic application. An excellent bibliography is included.

Although I would anticipate a rather limited usefulness of this small book, it is very well done.

ROBERT W. BROWN, M.D.



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Letters to the Editor

Dear Mr. Haughey:

Because the "pro" side of the case of a medico strike has been presented by the statement of the WCMS Council, and amplified by the statement of the Editor of the News, I think it highly important that the other viewpoint be presented, and to all the MSMS readers, not just those in Wayne County. A strike would involve us all.

May I offer my views:

A DOCTORS' STRIKE IS NEVER RIGHT!

By its endorsement of the recent strike of the Saskatchewan physicians, the Council of the Wayne County Medical Society and the Editor of the *Detroit Medical News* have given their blessing to the idea that a physicians' strike is ethical. On July 6, 1962, the Council of the WCMS sent the following telegram to Dr. Harold D. Dalgleish of Saskatoon, Saskatchewan: "The Council of the Wayne County Medical Society endorses and supports the firm stand taken by you and your colleagues in resisting the attempt of government to intrude into and control the practice of medicine." This telegram was given a "Special Notice" box in the *Detroit Medical News* of July 16.

On August 6, the Editor of the *Detroit Medical News*, under an editorial, "Peace in Our Time", writes: "Some have preached that the loss of prestige as a result of the Saskatchewan affair can neither be afforded nor regained. This is criticism by inuendo and invective. No law was broken; no ethic was transgressed. It is not unlawful for doctors to leave a locality and practice elsewhere; it is not unlawful to transfer office practice to the outpatient departments of hospitals. It is not unethical to resist an unjust legislative act. *There was no violation of the Hippocratic Oath.*" (Italics mine.)

In the above words, the County Medical Society's governing body and the Editor of the County Society Bulletin, representing over a third of the doctors of medicine in Michigan, have announced that, under certain conditions, a physicians' strike is ethical, and if ethical for Saskatchewan, then by inference it is certainly ethical for Michigan, given a sufficiently provocative situation. Inasmuch as it would have to be at least a state-wide situation which would lead up to such a strike, then out-state as well as Wayne County physicians should examine their consciences now to determine what they would do if such a strike is ever called. Wiser decisions are made in the calmer moments before a battle than when in the midst of one.

As I examine my own thinking in this matter, I find that I can conceive of *no* situation in the future which would lead me to condone a strike of physicians. So count me out, along with a lot of other Michigan physicians I know!

The WCMS Council and the Editor have fallen into the trap of making a good end justify a bad means. More than just law is involved here. Our decisions must be made on the higher plane of ethics and basic Hebrew-Christian morality.

Let us consider specific points raised by the editor. "It is not unlawful for doctors to leave a community and practise elsewhere." Of course not, but a doctor who leaves a community with no medical care as he moves away has broken a *moral* law if he does not work hard to get a replacement or medical help from a neighboring community. This he can do if this is just an individual act. This he cannot do if a strike is on, for where is his replacement or help from doctors in neighboring communities coming from? Also, if he stays in the community but declines to continue treatment on all but emergency cases, what about the legal problem of abandonment? With a strike on there would be no way for the "non-emergency" patient to be transferred to the care of another doctor as he would otherwise. It is interesting to imagine a court decision in such a case.

Again, "It is not unlawful to transfer office practice to the outpatient departments of hospitals." Agreed, if it is in a time of community disaster where the most efficient use of available physicians must be made for the flood of serious cases at hand. Here the change is made to meet better the crying medical needs of a disaster. But this is *not* the situation in a strike, where a minority of doctors man out-patient clinics to handle so-called emergency cases, and the rest have closed their offices—and their availability —to their patients.

Again, "It is not unethical to resist an unjust legislative act." Agreed, but only if the resistance is in an ethical manner. This is the point where the mistaken principle that the end justifies the means has fogged the issue badly.

Again, "There was no violation of the Hippocratic Oath." A lot has been hung on to the Hippocratic Oath which I am sure Hippocrates never foresaw in his day, but I suspect that the statement in the Oath that "Into whatever houses I enter, I will go into them for the benefit of the sick", covers the situation the best as far as Hippocrates is concerned. I am sure that he also would never have worded it: "Into

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whatever houses I *refuse* to enter it will be for the benefit of the sick." Hippocrates would not have been that naive!

We have sometimes loaded too much on Hippocrates, and the ideals of the average physician stem more from the Hebrew-Christian tradition which has nurtured our culture than they do from our Greek colleague of long ago. When we contemplate a physicians' strike, we hear Amos say, "Do not turn aside the needy in the gate", and we hear Jesus say, "I was sick and you visited me". These are only two of the many statements which remind us that when we chose to practise medicine, we did it from a higher motive than just to make a living. We chose to help people—men, women, and children. These people have become our friends, and I would as soon think of withholding medical assistance from them as I would from my own family. How do you explain to your patient-friends "I'm sorry, I can't help you, I'm on strike?" I couldn't, and when the chips were down, I think the members of the WCMS Council would feel the same way.

Of course, the proponents of a strike point out that emergency care is provided. Has anyone ever defined emergency care? How can one be sure that relatively harmless respiratory infection is not the prodromal symptom of serious disease? Is angina non-emergency until it develops into an infarct? At what quantitative determination of pain does a non-emergency condition become an emergency? Is prenatal care non-emergency but delivery an emergency? How would immunizations rate? Would Pap smears be non-emergency, but biopsy of an obvious lesion an emergency? A physicians' strike might last months, not just weeks. And when over, it might result in no more gains than those of the Saskatchewan profession, which even the Medical News Editor admits are small. And at what a cost!

If we learned that all the members of the law enforcement agencies in the state were going on a strike (not just a few transferring from the Michigan State Police to the Ohio State Police because Ohio had better salaries), and that only a certain few were detailed to chase down committors of murder, rape, and perhaps bank robberies of over a million dollars, we physicians would be as outraged as the rest of the public. Can't we see that in the eyes of the public, the threat of a doctors' strike is even worse? God help the medical profession if we sink to the corporate level of a Medical Teamsters' Union! I am no more enthused about the domination of Medicine by Government than is the WCMS Council, but there are other ways to fight than by the threat of a doctors' strike.

Respectfully,
JOHN R. RODGER, M.D.

Bellaire Michigan
August 9, 1962

To Speak at U-M

Irving S. Cooper, M.D., Director of the Department of Neurologic Surgery at St. Barnabas Hospital for Chronic Diseases in New York City, will give the Annual Roy Bishop Canfield Memorial Lecture at 8 p.m., Wednesday, February 6, at the University of Michigan Medical Center. The free, illustrated lecture will be sponsored by the U-M Chapter of Phi Rho Sigma Medical Fraternity. Dr. Cooper will review his work with brain surgery for involuntary movement and bring up to date his recent investigations of cryogenic surgery.

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Michigan State Medical Society
Ninety-Sixth Annual Session
September 24-26, 1961

Digest of Proceedings of the House of Delegates

This number is composed of two sections, of which this is Section 2.

Michigan State Medical Society

Ninety-sixth Annual Session

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Digest of Proceedings

January, 1962

MSMS Ninety-Sixth Annual Session--1961
House of Delegates Proceedings

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	Introduction of Business	*Reference Committee Report*	*Action*
I. Record of Attendance (Roll Call)	9		
II. Speaker's Remarks	10	33	Accepted
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IV. President-Elect's Remarks	12	34	Accepted
V. Report of Delegates to American Medical Association	13	34	Approved with recommendation on Social Security poll
VI. Report of Woman's Auxiliary to MSMS	13	34	Accepted
VII. Report of Michigan State Medical Assistants Society	14	34	Accepted
VIII. Report of Michigan Medical Service	15	47	Adopted with recommendations to MMS
IX. Selection of Michigan's Foremost Family Physician	15		
1. Presentation of award and scroll	50		
X. Reports of The Council including—	25	34 & 36	Amended and approved with recommendations
1. Report of Chairman of Finance Committee	25	36	
2. Report of Committee on Relative Value Study	27	45	Received with recommendations
XI. *Resolutions* (Where resolutions are identical or similar in content, the names of the introducers are indicated, to avoid confusion.)			
1. Association Between MSMS and MMS (Rice of Jackson)	18	41	Adopted
2. Formation of Youth Fitness Programs (MSMS President's Program)	18	42 & 52	Substitute Resolution Approved
2. Chiropractic Practice (Rice of Jackson)	18	41	Adopted plus Recommendations

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4. Governmental Agency Reimbursement to Hospitals (Taylor of Jackson)	20	47	Amended & Approved plus recommendation
5. Expansion of Relative Value Study (Taylor of Jackson —see Resolutions Nos. 14 & 28)	21	46	Adopted
6. (Similar to No. 11) Fee for Service Assumed by Governmental Agency (Taylor of Jackson)	21	41	Approved in Principle
7. (Same as No. 25 & similar to No. 24) Inclusion of MDs under National Social Security (McLean of Wayne)	16	39 & 52	Substitute Resolution Approved
8. MSMS Council Meetings	22	41	Disapproved
9. (Same as No. 32) Public Representation on Blue Shield Board	19	51	Referred to The Council for Transmittal to Committee
10. (Same as No. 27) No Publication of MMS Participating Physicians List (Wenzel of Wayne)	17	48	Amended and approved
11. (Similar to No. 6) Re-endorsement of Michigan Uniform Fee Schedule for Governmental Agencies (Cole of Wayne)	20	41	Approved in Principle
12. (Same as No. 29) Revision of Uniform Fee Schedule for Governmental Agencies (Tallant of Wayne)	17	48	Amended and approved
13. Physician's Use of Seat Belts	19	43	Adopted plus recommendation
14. Use of Michigan Relative Value Scale (Taylor of Jackson—see Resolutions No. 5 and No. 28)	21	46	Ruled out-of-order
15. Honorary Membership to John Reid of Lansing	23	43	Accepted
16. Expansion of the County Medical Examiner System	23	42	Adopted
17. (Similar to Nos. 23 and 33) Discontinuance of Election of "Michigan's Foremost Family Physician" (Teed of Washtenaw)	23	42	Substitute resolution approved
18. MMS-MHS Term "The Doctor's Plan"	15	48	Disapproved
19. (Similar to No. 48) Hospital Study Commission for Publicly Operated Hospitals	15	44	Referred to Committee
20. MMS Board of Directors Term of Office (Levagood of Wayne)	16	51	Disapproved
21. Revision of MMS Service Contracts	16	41	Disapproved
22. (Similar to No. 40) Relationship with Osteopathic Physicians	16	40	Amended and Adopted
23. (Similar to No. 17 and 33) Discontinuance of Election of "Michigan's Foremost Family Physician" (Avery of Kent)	16	42	Substitute resolution approved
24. (Similar to No. 7 and 25) Inclusion of MDs under National Social Security (Brink of Kent)	16	39 & 52	Substitute resolution approved
25. (Same as No. 7 and similar to No. 24) Inclusion of MDs under National Social Security (McLean of Wayne)	16	39 & 52	Substitute resolution approved
26. Hospital Staff Payments	17	48	Amended and approved
27. (Same as No. 10) Publication of MMS Participating Physicians List	17	48	Amended and approved
28. Report of Relative Value Scale Committee—(Brace of Kent)—see Resolutions No. 5 and No. 14	17	46	Ruled out-of-order
29. (Same as No. 12) Revision of Uniform Fee Schedule for Governmental Agencies (Tallant of Wayne)	17	48	Amended and approved
30. Tobacco and Liquor Advertising in JMSMS	17	44	Disapproved
31. MMS Board of Directors Term of Office (Haanes of Oakland)	18	51	Approved

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	Introduction of Business	Reference Committee Report	Action
32. (Same as No. 9) Public Representation on Blue Shield Board	19	51	Referred to The Council for Transmittal to Committee
33. (Similar to No. 17 and 23) Discontinuance of Election of "Michigan's Foremost Family Physician" (Rottenberg of Wayne)	19	42	Substitute resolution approved
34. Civil Defense	20	51	Amended and approved
35. Inter-Relationship of Sections in the Michigan Relative Value Study (Taylor of Jackson)	21	46	Substitute resolution offered and ruled out-of-order
36. Unit Values and Relation to Department of Labor Cost of Living Index	21	46	Disapproved
37. Cost of Health Care	21	48	Amended and approved
38. Change in MSMS Bylaws (Ethics Committee's Recommendations)	21	38	Disapproved
39. Voluntary Prepayment Funding Plans	22	48	Amended and approved
40. (Similar to No. 22) Relationship with Osteopathic Physicians (Owen of Wayne)	22	42	Adopted
41. Education of Osteopathic Physicians (Whittaker of Wayne)	22	42	Disapproved
42. Contacts with Legislators	23	42	Approved
43. Health Maintenance of Employees in Industry	23	43	Substitute resolution adopted
44. Change Name of MSMS Committee on Occupational Medicine to Committee on Occupational Health	23	37	Approved
45. Major Medical Insurance Program	24	48	Amended and approved
46. Commendation to H. J. Meier, M.D., Coldwater, Retiring Chairman of The Council	44	(not referred)	Approved
47. Medical Society's Responsibility to Public and the Ill Physician	45	52	Substitute resolution approved
48. (Similar to No. 19) Hospital Study Commission for Publicly Operated Hospitals	47	51	Substitute resolution, as amended, approved
49. Appreciation to Members of Relative Value Study Committee (Dillon of Van Buren)	47	(not referred)	Approved
50. Survey and Study of Chiropractic Practice in Michigan (Drolett of Ingham)	50	(not referred)	Approved
51. Substitute Resolution re Inclusion of MDs under Social Security (Substitute for Nos. 7, 25 and 24) introduced by Reference Committee on Resolutions	52	52	Approved
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4. Committee on Legal Affairs	24	37	Approved with commendation and recommendation
5. Committee on Mediation	24	37	Approved
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XV. Reports of MSMS Special Committees	24		
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2. Advisory Committee to Woman's Auxiliary	24	43	Approved
3. Scientific Radio Committee	24	43	Approved with thanks
4. Study on Prevention of Highway Accidents Committee	24	43	Approved
5. Medical Care Study Committee	24	44	Approved
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Michigan State Medical Society

DIGEST OF PROCEEDINGS OF THE 1961 HOUSE OF DELEGATES

SUNDAY EVENING SESSION
September 24, 1961

The first session of the House of Delegates of the Michigan State Medical Society, held at the Pantlind Hotel, Grand Rapids, Michigan, on September 24, 25 and 26, 1961, convened at 8 p.m., J. J. Lightbody, M.D., Speaker of the House of Delegates, presiding.

I. RECORD OF ATTENDANCE

	1st	2nd	3rd	4th	5th
J. J. Lightbody, M.D., Speaker	x	x	x	x	x
H. F. Falls, M.D., Vice Speaker	x	x	x	x	x
D. Bruce Wiley, M.D., Secretary	x	x	x	x	x
Milton A. Darling, M.D., Member-at-large	x	x	x	x	x
A. V. Wenger, M.D., Honorary Member	–	–	–	x	–

DELEGATES

	1st	2nd	3rd	4th	5th
ALLEGAN					
Lewis F. Brown, M.D.	x	x	x	x	x
ALPENA-ALCONA-PRESQUE ISLE					
John W. Bunting, M.D.	x	x	x	x	x
BARRY					
Alexander B. Gwinn, M.D.	x	x	x	x	x
BAY-ARENAC-IOSCO					
David A. Bowman, M.D.	x	x	x	x	x
Stanley A. Cosens, M.D.	x	x	x	x	x
BERRIEN					
Noel J. Hershey, M.D.	x	x	x	x	x
Paul O. Rague, M.D.	x	x	x	x	x
BRANCH					
Robert M. Leitch, M.D.	x	x	x	x	x
CALHOUN					
Harvey C. Hansen, M.D.	x	x	x	x	–
Keith S. Wemmer, M.D.	x	x	x	x	x
CASS					
Uriah M. Adams, M.D.	x	x	x	x	x
CHIPPEWA-MACKINAC					
Donald D. Finlayson, M.D.	x	x	x	x	x
CLINTON					
Franklin W. Smith, M.D.	x	x	x	x	x
DELTA-SCHOOLCRAFT					
Francis C. Anderson, M.D.	x	x	x	x	x
DICKINSON-IRON					
Donald R. Smith, M.D.	x	x	x	x	x
EATON					
Bryon P. Brown, M.D.	x	x	x	x	x
GENESEE					
Lawrence G. Bateman, M.D.	x	x	x	x	x
Wm. F. Buchanan, M.D.	x	x	x	x	x
Clifford W. Colwell, M.D.	x	x	x	x	x
Frank D. Johnson, M.D.	x	x	x	x	x
J. Leonidas Leach, M.D.	x	x	x	x	x
John E. Wentworth, M.D.	–	x	x	x	x
GOGEBIC					
John R. Franck, Jr., M.D.	–	x	x	x	x
GRAND TRAVERSE-LEELANAU-BENZIE					
Frank H. Power, M.D.	x	x	x	x	–
GRATIOT-ISABELLA-CLARE					
John M. Wood, M.D.	x	x	x	x	x
HILLSDALE					
Arthur W. Strom, M.D.	x	x	x	x	x
HOUGHTON-BARAGA-KEWEENAW					
Andrew M. Roche, M.D.	x	x	x	x	x
HURON					
Charles W. Oakes, M.D.	x	x	x	x	x
INGHAM					
Lawrence A. Drolett, M.D.	x	x	x	x	x
Herbert W. Harris, M.D.	x	x	x	x	x
Mahlon S. Sharp, M.D.	x	x	x	x	x
Robert M. Stow, M.D.	x	x	x	x	x
John M. Wellman, M.D.	x	x	x	x	x
IONIA-MONTCALM					
Robert E. Rice, M.D.	x	x	x	x	x
JACKSON					
John W. Rice, M.D.	x	x	x	x	x
Ross V. Taylor, M.D.	x	x	x	x	x
KALAMAZOO					
W. Kaye Locklin, M.D.	x	x	x	x	x
Don Marshall, M.D.	x	x	x	x	x
Donald G. May, M.D.	x	x	x	x	x
Frederick C. Ryan, M.D.	x	x	x	x	x
KENT					
Felix S. Alfenito, Jr., M.D.	x	x	x	x	x
Noyes L. Avery, Jr., M.D.	x	x	x	x	x
W. Clarence Beets, M.D.	x	x	x	x	x
Frederick C. Brace, M.D.	x	x	x	x	x
J. Russell Brink, M.D.	x	x	x	x	x
James A. Ferguson, M.D.	x	x	x	x	x
J. D. Miller, M.D.	x	x	x	x	x
Allison R. Vanden Berg, M.D.	x	x	x	x	x
LAPEER					
Harry B. Zemmer, M.D.	x	x	x	x	x
LENAWEE					
George C. Wilson, M.D.	x	x	x	x	x
LIVINGSTON					
Harold C. Hill, M.D.	x	x	x	x	–
LUCE					
None	not represented				
MACOMB					
Sydney Scher, M.D.	x	x	x	x	x
Edward G. Siegfried, M.D.	x	x	x	x	x
MANISTEE					
Robert R. Garneau, M.D.	x	x	x	x	x
MARQUETTE-ALGER					
Eugene R. Elzinga, M.D.	x	x	x	x	x
MASON					
Herbert G. Bacon, Jr., M.D.	x	x	x	x	x
MECOSTA-OSCEOLA-LAKE					
Paul Ivkovich, M.D.	x	x	x	x	x
MENOMINEE					
John R. Heidenreich, M.D.	x	x	x	x	x
MIDLAND					
Harold L. Gordon, M.D.	x	x	x	x	x
MONROE					
Samuel N. Kelso, Sr., M.D.	x	x	x	x	x
MUSKEGON					
Robert J. Fles, M.D.	x	x	x	x	–
H. Clay Tellman, M.D.	x	x	x	x	x
NEWAYGO					
J. Paul Klein, M.D.	x	x	x	x	x
NORTH CENTRAL					
Louis F. Hayes, M.D.	x	x	x	x	x
NORTHERN MICHIGAN					
Gerald Drake, M.D.	x	x	x	x	x
OAKLAND					
Robert M. Bookmyer, M.D.	x	x	x	x	–
Edward E. Elder, Jr., M.D.	x	x	x	x	x
Harold A. Furlong, M.D.	x	x	x	x	x
Merle A. Haanes, M.D.	x	x	x	x	–
Michael C. Kozonis, M.D.	x	x	x	x	x
Harry E. Lichtwardt, M.D.	x	x	x	x	x
Arthur R. Young, M.D.	x	x	x	x	x
Walter J. Zimmerman, M.D.	x	x	x	x	x
OCEANA					
Willis A. Hasty, M.D.	x	x	x	x	x

	1st	2nd	3rd	4th	5th
ONTONAGON					
Wm. F. Strong, M.D.	x	x	x	x	x
OTTAWA					
John H. Kitchel, M.D.	x	x	x	x	x
SAGINAW					
Vernon V. Bass, M.D.	x	x	x	x	x
Robert F. Powers, M.D.	x	x	x	x	–
Aaron C. Stander, M.D.	x	x	x	x	x
ST. CLAIR					
Wm. J. Dinnen, Jr., M.D.	x	x	x	x	x
James H. Tisdel, M.D.	x	x	x	x	x
ST. JOSEPH					
S. Albert Fiegel, M.D.	x	x	x	x	x
SANILAC					
Keate T. McGunegle, M.D.	x	x	x	x	x
SHIAWASSEE					
Claude L. Weston, M.D.	x	x	x	x	x
TUSCOLA					
None	not represented				
VAN BUREN					
Thomas J. Dillon, M.D.	x	x	x	x	x
WASHTENAW					
Clarence E. Crook, M.D.	x	x	x	x	x
Harold F. Falls, M.D.	x	x	x	x	x
Theodore G. Kabza, M.D.	x	x	x	x	x
Henry A. Scovill, M.D.	x	x	x	x	x
John W. Smillie, M.D.	–	–	–	–	x
R. Wallace Teed, M.D.	x	x	x	x	x
Harry A. Towsley, M.D.	x	x	x	x	–
WAYNE					
Sidney Adler, M.D.	x	x	x	x	x
Raphael Altman, M.D.	x	x	x	x	x
Louis J. Bailey, M.D.	x	x	x	x	x
Elden C. Baumgarten, M.D.	–	x	x	x	–
Alexander Blain, III, M.D.	x	x	x	x	x
James B. Blodgett, M.D.	x	x	x	x	x
George T. Bradley, M.D.	x	x	x	x	x
William L. Brosius, M.D.	x	x	x	x	x
John R. Brown, M.D.	x	x	x	–	–
Clarence L. Candler, M.D.	x	x	x	x	–
Wm. S. Carpenter, M.D.	x	x	x	x	x
Wyman C. C. Cole, Jr., M.D.	x	x	x	x	x
Ralph R. Cooper, M.D.	x	x	x	x	x
A. Jackson Day, M.D.	x	x	x	x	x
Herbert W. Devine, M.D.	x	x	x	x	x
Edwin H. Fenton, M.D.	x	x	x	x	x
James D. Fryfogle, M.D.	x	x	x	x	x
Hugh W. Henderson, M.D.	x	x	x	x	x
Homer A. Howes, M.D.	x	x	x	x	x
Philip J. Huber, M.D.	x	x	x	x	x
Raymond J. Kokowicz, M.D.	x	x	x	x	x
Luther R. Leader, M.D.	x	x	x	x	x
Floyd B. Levagood, M.D.	x	x	x	x	x
Arthur B. Levant, M.D.	x	x	x	x	x
Max L. Lichter, M.D.	x	x	x	x	–
Edgar E. Martmar, M.D.	x	x	x	x	x
William B. McIntyne, M.D.	x	x	x	x	x
G. Thomas McKean, M.D.	x	x	x	x	x
Don W. McLean, M.D.	x	x	x	x	x
George Mogill, M.D.	x	–	–	x	x
Joseph R. Montante, M.D.	x	x	x	x	x
Robert L. Novy, M.D.	x	x	x	x	x
Eugene A. Osius, M.D.	x	x	x	x	x
Clarence I. Owen, M.D.	x	x	x	x	x
Alvin E. Price, M.D.	x	x	x	x	x
Howard C. Rees, M.D.	x	x	x	x	x
Frances P. Rhoades, M.D.	x	x	x	x	x
Jack Rom, M.D.	–	–	–	–	x
Leon Rottenberg, M.D.	x	x	x	x	x
Albert D. Ruedemann, Sr., M.D.	x	x	x	x	x
John G. Slevin, M.D.	x	x	x	x	x
Eugene J. Steinbarger, M.D.	x	x	–	–	–
David I. Sugar, M.D.	x	x	x	x	–
Donald N. Sweeny, Jr., M.D.	x	x	x	x	–
Edward J. Tallant, M.D.	x	x	x	x	x
William M. Tuttle, M.D.	x	x	x	x	x
Edward M. Vardon, M.D.	x	x	x	x	x
Jacob F. Wenzel, M.D.	–	x	x	x	x
Robert K. Whiteley, M.D.	x	x	x	x	x
Alfred H. Wittaker, M.D.	x	x	x	x	x
Richard E. Wunsch, M.D.	x	x	x	x	x
William J. Yott, M.D.	x	x	x	x	x
WEXFORD					
Gregory P. Moore, M.D.	x	x	x	x	x

MEDICAL STUDENTS

	1st	2nd	3rd	4th	5th
UNIVERSITY OF MICHIGAN					
John F. Balog	–	x	x	x	x
Charles F. Gehrke	x	–	–	–	–
David Hickok	x	x	x	x	–
Harold J. Richards	x	x	x	x	–
James M. Simpson	x	x	x	x	x
Peter Slaughter	x	x	x	x	x
Maynard L. Stetten	x	x	x	x	–
WAYNE STATE UNIVERSITY					
Drake Duane	–	–	–	–	x
Steve Georgiou	–	–	–	–	x
Dan Wooton	–	–	–	–	x

II. SPEAKER'S REMARKS

By J. J. Lightbody, M.D., Detroit

I want to welcome you to this 96th Session, and I also want to offer a hearty welcome to our many guests and to the members of the news media of the press, radio and television.

By formal action of this House and The Council, the deans of both of our medical schools are invited annually to attend the convention of the House of Delegates, and they will be introduced later in this session.

Representatives of the junior and senior classes of our two medical schools again have been invited to attend our sessions, and they also will be introduced individually at the appropriate time.

We have just received word, however, from Mr. W. R. Brewer, President of the Junior Class at Wayne State University, that the three Junior representatives from Wayne will not be able to be with us this year. I would like to read a portion of his letter.

"It is with deepest regret that I must inform you that the delegation from the Junior Class, Wayne State University College of Medicine, will not be attending the convention in Grand Rapids.

"All three of us were looking forward to doing so, but the combination of summer employment, commencement of school and family arrangements proved too much to permit such a venture.

"We all sincerely hope that our failure to act will not adversely affect future classes' opportunities to do so.

"Please accept our apologies for any inconvenience this has placed on you, and our thanks for extending this kind invitation. Were the time and circumstances different we would all welcome the opportunity to attend."

The members of the other medical school classes who are present will not be assigned to any special reference committee, as I feel that they should have the privilege and opportunity of attending any reference committee they may choose.

Every year there are some new members attending the House sessions for the first time. I would like those delegates and alternates who have never been delegates or alternates previously, and who are attending this meeting for the first time, to stand as their names are read. Please withhold your welcoming applause until all have been introduced.

A special welcome to you new delegates, and we hope you may take every opportunity to avail yourself of the floor for discussion purposes and also to participate in the proceedings of the reference committees.

This year, we again have the large looseleaf notebook which includes a great many important items in its 189 pages, and the collection of this material and printing and classifying of it has been a tremendous job for the staff.

At this time, I would like to announce several changes in reference committees. If you have your Handbook available you may wish to make these changes.

Dr. Milton Weed, Chairman of the Reference Committee on Special Committees, will not be able to be with us at this meeting because of a conflicting meeting in Washington having to do with veterans' affairs. He has been replaced by Dr. Ed Tallent of Wayne. An addi-

tional member has been added to this Reference Committee—Dr. William MacIntyre of Wayne.

This year, according to the order of business as noted in your Handbook, the first opportunity for the presentation of resolutions will be tomorrow morning under item 17. When resolutions are called for I would like you to follow the numerical sequence in the Handbook, beginning with Resolution No. 1, so that the delegate introducing Resolution No. 1 will go quickly to the nearest microphone, give his name and county, and then read only the "Resolved" portion of the resolution. Any new resolutions that have not been mimeographed and submitted to you as of tonight must be submitted in triplicate in the usual manner by a delegate, and read *in toto* on the floor of the House.

These new resolutions will then be mimeographed as speedily as possible and will be in your hands by the next meeting of the House.

There is one change in assignments of resolutions. Resolution 5, submitted by Dr. R. Taylor, has been referred to the Reference Committee on Special Committees, not to the Reference Committee on Medical Service and Prepayment.

Tomorrow morning we shall again elect Michigan's Foremost Family Physician. The biographical information on the three candidates is already in your hands. Please read their biographies thoroughly so that you may vote promptly. If there are any delegates or alternates or friends of any one of the three candidates who wish to speak in their behalf, they will be given that opportunity before the ballot is cast.

All resolutions requesting special memberships should be given directly to Dr. Herbert Devine, Chairman of the Committee on Special Memberships.

Finally, it has been a revelation to me, particularly in the past two years, to observe the manner in which you delegates have accepted the responsibility of reference committee appointments. This fine response is a tribute to your devotion to your profession.

I am sure that when these meetings are terminated you will feel that your time and labor have been well spent and that you personally have made a contribution to the profession, far beyond the average call of duty.

I shall refer the Speaker's remarks to the Reference Committee on Officers' Reports.

III. PRESIDENT'S REMARKS

By Kenneth H. Johnson, M.D., Lansing

It is a very real privilege to be back with all the people I know in the House of Delegates. I think it was a very apropos thing for the Speaker to introduce the new delegates to this House. I sincerely hope they will be a leaven to the whole loaf of bread.

I notice that the Speaker has demoted the officers. He has us sitting down on the same level with the rest of you. I don't understand how I can adequately carry out the little trademark which Hugh Brenneman pointed out to me many years ago when I stood on the rostrum as your Speaker "shooting my cuffs." I am a little low down to have you get the full effect of it.

That which stands out above all else as a result of my experience of a year as President of this great Society is best typified by the one word, "humility."

"Humility" because while I have been honored by the title of President, I know that there are a multitude of physicians who have given most generously of their time and energy in like fashion.

"Humility" because of awareness of the sincere devotion to good medical practice showed by the great majority of the 6,800 physician members of this Society.

"Humility" because of the qualified group of persons who constitute the working staff of MSMS.

And "humility" because of the splendid cooperation evidenced by all groups in implementing the many decisions of this House, The Council and the officers of this Society.

Special mention should be made of the work of Lester P. Dodd, our Legal Counsel; of Dr. Al Heustis, the Commissioner of Health; of Dr. Thomas McKean and Sumner Whittier of Blue Shield; the Deans, Dr. Scott and Dr. Hubbard, and the professional staff at our two medical schools. There are so many others—the Auxiliary, the Michigan Health Council, the Medical Assistants Society, who have continued to share in the work of providing good medical care for the people of this State.

And finally a feeling of "humility" because of the understanding cooperation of my professional associates, the nurses in my office, some very special friends, my patients, and the members of my family.

In a very short time, I shall turn over my official title to Dr. Otto K. Engelke. Just as I was very, very proud to succeed Dr. Milton A. Darling, I am also delighted that you chose a man of the caliber of Dr. Engelke to be your new President. I assure you that there has been complete accord between us throughout my term of office.

It would perhaps be of some personal satisfaction for me to stand before you and point with pride to the accomplishments of this past year. This I cannot do because I know all too well that the only credit I can take is in attempting to carry on a continuity of the purpose for which MSMS was created. However, as a result of my experience I should like to make some comments and respectfully suggest some ideas for your consideration.

I have visited several county societies and the Upper Peninsula Medical Society this past year. These visits were by invitation only. It has been fascinating to see that each area has its own field of accomplishment and its own problems to solve. I felt that no one was just sitting on his hands, but each was working effectively. There were some criticisms. For the most part, I felt that these grew out of a lack of understanding of the issues involved and/or the best approach to remedy the situations. This matter of communication is a big problem which we have not solved adequately.

I strongly urge that State Society officers be invited at appropriate intervals to your meetings. This should in no way interfere with the work of your Councilor or the officers of your societies.

I feel that the trip to Washington, D. C., in May should be continued, perhaps even be made twice a year if it seems advisable.

I am convinced that the action taken on April 16 of this year, at the special meeting of the House which recommended that our component societies also send representatives, should be implemented.

In all phases of the political situation I am certain we will do well to show our sincere interest. Let it not be just for those things which concern us specifically, but let's show that we are good citizens as well as good doctors.

Our new headquarters building has, in my opinion, justified its existence already. It has served to attract attention to the fact that the Michigan State Medical Society is not a side-street organization but rather that it intends to take a position of dignified prominence in the affairs of men. It has already served as a meeting place for The Council, for many committees of the Society, and for other groups having a relationship with MSMS.

We are at present operating on the policy that only groups which offer an opportunity for a talk by a physician or a subject about medicine shall be permitted to meet in our new building. I would suggest that this policy be continued.

Perhaps the greatest service this building may provide is as headquarters for the President's Program. I sincerely believe we are ready for specific implementation, and heartily recommend that it be done promptly, culminating in its fullness by 1965, our Centennial.

Through experience I have found that public appearances by doctors of medicine offer a problem not easy

to resolve. This is particularly true of the officers of the Society. I might add that it includes statements made for news media.

Only by a careful evaluation of the individual situation may one know whether it offers a genuine opportunity for intelligent discussion or may serve on the contrary to create only emotional reactions.

Obviously, one of the best controls in this regard is to be familiar with the "man in charge". This can best be accomplished by having a friendly relationship with a great many people, particularly those who occupy positions of leadership or who are recognized as authorities in their own right. This includes, in my opinion, reporters, radio and television announcers, as well as officers of other groups.

My final paragraph will be a grouping of thoughts having relationship with each other. I have found that we are all too susceptible to the technique of handling things on a "problem basis". I don't really believe this is because we lack courage in coming out with a positive program. I feel that we have perhaps been victimized in our thinking by the attitude prevalent in the world situation. The fact is, however, that we sometimes leap from crisis to crisis, and for the most part these are the specific result of outside pressures. It is like the basketball team that is forced to play the other team's game and thus never gets its own offense started.

Our Michigan State Medical Society has a record of which to be proud. Let us retain the initiative of positive thinking in all our deliberations. There are serious decisions to be made by this House. If nothing else is accomplished, I hope that these decisions may be couched in positive words and implemented with positive action.

One of our biggest decisions seems to me to be the matter of finances. Dr. Oliver B. McGillicuddy and his Finance Committee of The Council have done a splendid job of carefully weighing the justification for expenditures. It is my opinion that this Society cannot in conscientious deliberation be subservient to the dollar sign. Affecting as it must the 6,800 members of this Society, and even more particularly the people of this State and of this nation, we must strive to see where the end justifies the means, and act accordingly even though the price may seemingly and momentarily be high.

After twelve months of experience as your President, I can see the day in the near future when this Society must take action to recompense your chief executive to offset partially the loss in income that this job exacts. The MSMS Presidency is no longer only a position of honor—it is almost full-time employment, with plenty of night and Sunday work thrown in for good measure!

Another idea for your consideration: Our MSMS Centennial will take place in 1965. On that historic occasion the House of Delegates might well consider a change in the name of our Society to "Michigan Medical Society (or Association)" to fit into the modern concept already adopted by thirteen states throughout the nation. I recommend you give thought to this proposal.

Well, it's time to close, and as I bid you farewell I add, Godspeed!

Vice-Speaker H. F. Falls, M.D.: This address will be referred to the Reference Committee on Officers' Reports.

IV. PRESIDENT-ELECT'S REMARKS

By Otto K. Engelke, M.D., Ann Arbor

May I begin by expressing my appreciation for the privilege of serving as President-elect of this great Society and for the opportunity to address you today.

One of my concerns has been and will be my ability to measure up to the high standards established by my predecessors, the Society officers and members of this House through the years. Much of what I have to say today will be a success story reflecting efforts of men like President Johnson, Speaker Lightbody, and others who dedicate many, many hours to Society service.

The convening of this current session of the Congress of the United States was not an occasion for much optimism in the ranks of men and women of American medicine. On every side one heard suggestions that the socialization or nationalization of medicine was upon us, was inevitable, was just around the corner, or would be an accomplished fact by the year's end. To oppose this "trend" was held by many to be hopeless.

Our much-maligned American Medical Association, our Michigan State Medical Society and our local medical societies all refused to play dead. Things had looked bad before. We all had been given a dose of the same gloom in the Wagner-Murray-Dingell days. Supported by an interested, active, working membership and by a substantial share of the American people and their elected representatives in Congress, the fight was joined at all levels.

The positive objective was safeguarding and at the same time improving the best system of medical care the world has ever known.

Those of us who have had the privilege of greater participation in the scrap would like to point to the signs which seem to show that all is not lost. We think that one year's time has been gained. Medicine's opponents have "decided" that next year will be a better time to promote H.R. 4222 and other bills to nationalize medicine. Maybe we helped them make this decision.

Our Society programs for the coming year must be designed to help us all do our part to get another favorable legislative decision next year and the next and the next.

In 1962 medical care for the aged again will be the immediate issue. At risk will be the method of providing medical care for everyone.

From now on, our attack on all "King-Anderson Bill" social security schemes for providing medical care for the aged must be intense and deadly. At the same time we must do all we can to improve the operation of Michigan's Kerr-Mills, medical aid to the aged, old age assistance, and other related programs, and we must do this with all possible speed. Furthermore, we must devise effective ways of getting our story to the public and their policymaking representatives in government.

Finally, we must move with confidence in ourselves, our ideas, and in the wisdom of the public we serve. Everywhere one sees encouraging evidence that our old allies are with us and that we are gaining new vocal and effective friends.

While it is impossible to cover the entire area of our efforts in the time allocated for this message, a few important points bear emphasis.

First is the key role you leaders of medicine play in keeping the entire membership alerted to their importance in this picture. We can be hopeful of success because doctors have the public's confidence. Our image is excellent.

The vast majority of doctors have been practicing excellent medicine in this nation for decades, and are loved by their patients for having done so. Very few M.D.'s go abroad to learn about medicine any more. European M.D.'s are leaving the socialized Utopias to come over here to learn about our advances in a free medical society—and the public knows it!

A survey sponsored by the U. S. Public Health Service and reported in the September, 1961, *Health World News,* as well as studies by other reputable agencies, have proved this, much to the chagrin of the socializers who had almost convinced us that this was not so.

This favorable image and confidence can be main-

tained and enhanced by an improved communications job on the part of each physician. We should make a special point of this every day in our practice. Labor unions do not go around uttering and publishing reports about the weaknesses and deficiencies of their organization and members. Labor toots its own horn at every opportunity, and reports its every activity as perfection itself.

Who has ever heard the lawyers, the dentists, the certified public accountants, the Chamber of Commerce or any other group give damaging emphasis to defects publicly, as a matter of policy? There are enough people shouting about our alleged shortcomings. This appears to be an organized campaign. We must point with pride to our fellow physicians, our county and state societies, as well as the AMA, and properly so. The record is excellent.

The busy practicing physician must redouble his efforts to participate in the local community activities whirl both public and private. His ideas, his respect for the ideas of others, his participation and his leadership in solving all manner of community problems will be a tremendous contribution.

This is doubly true in health and related areas. Medical aid to the aged, and so forth, must be made to work in each community. Every aged person needing help with medical care should get it. The local medical society and practitioners have a major responsibility in this effort as they have in everything we do. Legislative contacts, the successful operation of voluntary prepayment insurance plans, press and radio relations, and so on, are all important locally.

Let's talk a while about specific ways state society actions are complementary to this local effort.

Michigan's record is enviable in this regard and must be improved.

I quote from the last three pages of the report I presented to the Ways and Means Committee of the House of Representatives in the course of the King-Anderson bill hearings. We said:

"Michigan has developed and is improving medical aid for the aged program under the Mills law. The Michigan State Medical Society will—

"1. Continue to provide the world's highest quality of medical care to all of Michigan's citizens. Medical progress shares heavily in the responsibility for the fact that there are 38 per cent more people over 65 years of age in Michigan today than there were in 1950. People are living longer and healthier lives.

"2. The Michigan State Medical Society will assist all those who need help in meeting the cost of medical care. The State Society asked Michigan Medical Service (Blue Shield) to establish the special contract for those over 65 years of age which is now in effect.

"3. It will vigorously endorse and promote voluntary prepayment medical care plans as the most satisfactory method of financing the cost of medical care. The doctors of Michigan have long been taking effective steps toward providing necessary medical care for the aged. Blue Shield originated through the efforts of Michigan doctors of medicine; and while it is nationwide today, perhaps the finest program is to be found in our State."

We also told the Ways and Means Committee that:

"Michigan's doctors of medicine have embarked upon a 'Presidents Program', adopted by the Society's House of Delegates in 1960. This program will culminate on the 100th Anniversary of the Society in 1965, and is aimed at adding years of productive, useful life to Michigan citizens through—

1. Encouraging basic research.
2. Complete coverage of the State by local health departments.
3. Prevention of disease.
4. Early detection of disease.
5. Disease control.
6. Maternal and child health programs.
7. Mental health programs.
8. Aid to the aged programs.
9. Emergency medical care programs.
10. Rehabilitation programs.
11. Financing of health care.
12. Recruitment of medical students.
13. Increasing medical school facilities."

Our own senators and representatives know about our history of constructive programs. Each year our best "salesmen" among our Society officers visit the scene of battle in Washington and effectively tell our story.

Our Presidents Program demonstrates the flexibility of this Society in tailoring sound procedures to valid objectives. It also demonstrates the acceptance of our responsibility for leadership in cooperation with other private and public agencies concerned with health.

Many of our friends and others will be looking over our shoulder at this meeting to see if we meant what we said in our Washington testimony. I am confident that they will learn that we did.

This national scrap, coupled with our own State Blue Shield-Blue Cross experience this past year, demonstrated again the need for a very special type of research to help us reach sound conclusions in our socio-economic legislative sphere of interest and influence.

You will probably participate in a lot of discussion centered about this extremely important research. There will undoubtedly be constructive debate about Blue Shield and other prepayment programs. Survey reports and their state legislative impact may be important at this meeting. National legislation will command your attention as will other facets of the Presidents Program and other perennially important items.

I repeat, many of our friends and others will be looking over your shoulder as you seize and develop medicine's opportunities to serve the public in the solution of these critical problems.

I am confident that you will again please our friends, convert many skeptics, and confound our opponents. You have an able Michigan State Medical Society staff to help you.

Those of us in whom you have placed your trust as officers will continue to do our best to represent you and to implement your decisions.

THE VICE SPEAKER: This address will be referred to the Reference Committee on Officers' Reports.

V. REPORT OF DELEGATES TO AMERICAN MEDICAL ASSOCIATION

By Wm. A. Hyland, M.D., Grand Rapids

The report of the delegates to the Americal Medical Association is printed in your Handbook and will be referred to the Reference Committee on Officers' Reports.

VI. REPORT OF WOMAN'S AUXILIARY TO MSMS

By Mrs. Paul Ivkovich, President

It is a pleasure for me to be here this evening. Mr. Burns asked that I give you a brief summary of the annual report of the Woman's Auxiliary. My report is included in the Delegates' Handbook with The Council reports, and at this time I would like to tell you about our organization.

The Objects as written in Article II of our Constitution and Bylaws are:

"(a) Through our members, to explain the objectives of the medical profession to lay organizations interested in health education.

"(b) To assist in the entertainment at all Michigan State conventions.

"(c) To promote acquaintanceship among physicians' families and thus foster better fellowship.

"(d) To do such work as may be approved or assigned by the Michigan State Medical Society."

These purposes are implemented through our Executive Committee and the Executive Board. The Executive Committee consists of eighteen elected officers, the Immediate Past State President and Parliamentarian. The Executive Board consists of the Executive Committee, State chairmen of standing committees, and county presidents.

We have forty-eight organized county auxiliaries with a total membership of 3,348, twenty-two of whom are members-at-large from unorganized counties.

All Auxiliary projects are carried through only upon approval of your organization. The State Auxiliary officers and chairmen work with the Michigan State Medical Society Advisory Committee and the State office; the component county auxiliaries work with their respective county medical societies.

The State Auxiliary follows a pattern set up by the Woman's Auxiliary to the American Medical Association. The President and President-elect attended the 17th Annual Conference of State Presidents and Presidents-elect and national officers and chairmen in Chicago. We also attended the AMA convention in June in New York City together with Michigan's delegation.

Information is channeled through the national *Bulletin,* the Handbook and our own Constitution and Bylaws. The counties set up their own constitution and bylaws, patterned after State and national to suit their needs.

Michigan has a midyear Board meeting which coincides with the Michigan Clinical Institute of the Michigan State Medical Society. Our officers are also invited to your Public Relations meetings and other meetings throughout the year.

Our State President-elect is also Chairman of Organization; the First Vice President is Chairman of Community Service, and the Second Vice President is Chairman of Program, which also includes civil defense and safety. All other State chairmen of standing committees are appointed by the State President.

Our priority projects coincide with national's, and 1961 of course put legislation ahead of everything else. Other projects include AMEF, Health Careers, Mental Health, TB Speaking. Community Service ties in everything. The Auxiliary is in a position to furnish authentic health programs to lay organizations as well as their own groups through the cooperation of the Michigan State Medical Society and the American Medical Association.

Michigan is divided into nine districts. Each district director works with her county auxiliaries by visiting them once a year, and also planning one district meeting a year to alternate from county to county, to which the State officers and chairmen are invited. It is not always possible for all to attend; however, the President is asked to do so.

This past year we have been fortunate in having some of our chairmen of priority projects attend district meetings with most gratifying results. Reports from counties indicate a 100 per cent vote.

AMEF has increased wherever our enthusiastic AMEF Chairman visited. Health Careers has been stressed throughout the State. The ideal time for district meetings is in the fall before deer hunting and winter set in. Districts I, II, III, IV and V had meetings in October.

It is regrettable that invitations from county auxiliaries are not always honored, but that is one of the reasons for district meetings—to meet with more than one county if possible. A State officer attends the Upper Peninsula meeting. This year it was my privilege to go to Menominee. Our two top State officers will make a complete circuit of all Upper Peninsula auxiliaries this fall. This is done every other year.

Out-of-state traveling usually is done in April and May. Two of us attended the annual meetings of Ohio, Indiana, Illinois and Ontario. One person attends the meeting in Wisconsin.

Representatives from Washtenaw and Wayne Counties work with the SAMA auxiliaries both at the University of Michigan and Wayne State University.

Report forms are sent from national to state, state to county, and all the way back. The State President is responsible for all these reports, and must send a summary to national for the historian and for publication in the national *Bulletin.* Lists of new officers and chairmen from counties are sent to state officers who are responsible for the mimeographing of these new lists, and they then are distributed to state and county officers and chairmen at the convention.

In closing, I wish to sincerely thank our Convention Chairman, Mrs. Willis L. Dixon, of Grand Rapids, and her entire Convention Committee for the tremendous amount of planning to make 1961 a good convention year.

The formal opening of the Woman's Auxiliary convention will be Wednesday morning. The Hospitality Committee invites all members and guests to the hospitality room, which opens at noon Tuesday. Registration opens at noon Tuesday, and all guests are asked to please register.

I also wish to thank all my own officers and chairmen for their fine cooperation during this past year. Without them the year would have been uneventful. To all the members of the staff of the Michigan State Medical Society and our own Advisory Committee, thank you.

THE SPEAKER: This report will be referred to the Reference Committee on Officers' Reports.

VII. REPORT OF MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

By Miss Donna Hyslop

It is a very great pleasure for me to appear before you for the second time. I was here two years ago.

The American Association of Medical Assistants' fifth annual convention, in Dallas in October, 1960, was attended by nineteen members of the Michigan State Medical Assistants Society. At this meeting, we were very proud to have one of our own members, Miss Hallie Cummins, elected as Treasurer of AAMA.

Our *Bulletin* took first prize in the publications contest for the second consecutive year.

Dr. John Rice has done an excellent job representing us as Chairman of the Advisory Committee of AAMA for the past year. Several of our members were active on reference committees during the House of Delegates sessions.

Oakland County and Kalamazoo County were hosts for our two Presidents' Conferences in November and April. These meetings were both very well attended by the officers and committee chairmen from component societies in all parts of the State, and we feel that they are a valuable part of our training program.

Our fourth annual Educational Seminar was held at the Detroit Leland Hotel concurrently with the Michigan Clinical Institute. We were very fortunate to have three excellent speakers from the Wayne County Medical Society present the program to 170 members and guests, on the theme, "Medical Techniques for the Medical Assistant".

The highlight of the luncheon at this Seminar was the first presentation of Certificates of Completion by the University of Michigan to our members who have completed the In-Service Training Program.

The six-semester pilot study In-Service Training Program has been completed by the University of Michigan. These syllabi are now available so that the course can

be offered by junior colleges or adult education programs throughout the State. During the past year it has been offered in seven areas.

We also have had an active part in providing exhibits at the Michigan Health Council's State Health Conference and the Michigan State Fair.

In October of this year, we shall be represented at the sixth annual convention of the AAMA in Reno by four delegates and two alternates. We are very proud to have had Michigan chosen as the site of the October, 1962, AAMA convention. Our committees are already hard at work formulating plans for this meeting.

The official publication of the Michigan State Medical Assistants Society, the *Bulletin* has been published quarterly for several years. It is our feeling that the *Bulletin* affords us the opportunity to reach our members with informative and educational articles.

We now have twenty-three component societies with a total membership of 945, including 228 new members. I felt that substantial membership gains were not realized this year due to the AAMA membership requirement changes. Our State Society is in hopes that these rules will be modified at the coming AAMA session. We have had inquiries from several counties during the past year regarding organizational meetings, and we are in hopes that we have given them the necessary encouragement to proceed.

The Michigan State Medical Assistants Society appreciates the interest and cooperation of The Council of the Michigan State Medical Society. We are most grateful to the county medical societies and advisory boards for their assistance throughout the years. I would also like to thank Dr. Glenn Millard for his valuable assistance as Chairman of the Advisory Committee to MSMAS.

THE SPEAKER: This report will be referred to the Reference Committee on Officers' Reports.

VIII. REPORT OF MICHIGAN MEDICAL SERVICE

By G. Thomas McKean, M.D., Wayne

I am happy to be able to invite you, on behalf of the Michigan Medical Service, to luncheon at 12:30 p.m. on Tuesday, in the Kent State Room, followed thereafter by the meeting of the corporation—at which every delegate is a voting member.

During this meeting there will be many representatives of Michigan Medical Service who will be happy to answer questions or receive comments relative to the operation of the organization.

THE SPEAKER: The report of Michigan Medical Service is printed in the Handbook and will be referred to the Reference Committee on Medical Service and Prepayment.

MONDAY MORNING SESSION

September 25, 1961

The second session of the House of Delegates convened at 9 a.m., H. F. Falls, M.D., Vice Speaker of the House of Delegates, presiding.

IX. SELECTION OF MICHIGAN'S FOREMOST FAMILY PHYSICIAN

THE VICE SPEAKER : It is going to be our extreme pleasure this morning to select Michigan's Foremost Family Physician. The floor will be open for comments and statements pertaining to candidates.

[*Candidates named, followed by the balloting*]

Dr. George Raynale of Birmingham has won the election as Michigan's Foremost Family Physician. [*Applause*] We expect Dr. Raynale to be here tomorrow morning to accept the scroll.

XI. RESOLUTIONS

XI—18. MMS-MHS TERM "THE DOCTOR'S PLAN"

J. F. WENZEL, M.D. [Wayne]

"Whereas, the term 'The Doctor's Plan' in Blue Cross-Blue Shield advertising implies recommendation to the public by the medical profession as a whole, and

"Whereas, Michigan Medical Service is in no way obligated to follow the recommendations of the duly elected delegates of the Michigan State Medical Society; therefore, be it

"RESOLVED: That the phrase, 'The Doctor's Plan' cease being featured in the advertising of Blue Cross-Blue Shield insurance in the State of Michigan.

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XI—19. HOSPITAL STUDY COMMISSION FOR PUBLICLY OPERATED HOSPITALS

JACK ROM, M.D. [Wayne]:

Whereas, the University of Michigan study of hospitals and medical economics, conducted under the direction of Walter J. McNerney, only covered the privately operated hospitals in Michigan and was concerned with the character and effectiveness of the use of private hospitals and with the care given by the private doctors of medicine of Michigan, and

Whereas, this report failed to consider the character, effectiveness and efficiency of hospitals of Michigan operated by the State or its various political subdivisions and the health care of patients in such hospitals, which is and ought to be of prime concern to the taxpaying citizens of Michigan, and

Whereas, if the socialist planners are successful in their efforts, the private practice of medicine and the operation of private hospitals will be superseded by health care and hospitalization under government control, and

Whereas, the taxpaying citizens have a right to know by comparison how efficient, effective and economical such government operation of medical facilities would be, and

Whereas, the citizens of Michigan have a right to an impartial study of government-operated medical facilities in Michigan so that they may form a reasonable comparison with private medical care; therefore, be it

RESOLVED: That the House of Delegates of the Michigan State Medical Society hereby petition the Governor of the State of Michigan to appoint a commission to study the character, scope, effectiveness and efficiency of all federal hospitals and medical facilities in Michigan operated by the State or any of its political subdivisions concerning the health care given patients in such institutions and, in their report, to compare such facilities with privately operated hospitals in Michigan as contained in the McNerney report; and be it further

RESOLVED: That the House of Delegates recommend to the Governor of Michigan that the following organizations concerned with the health care of our citizens be represented on such a commission:

1. **Michigan Hospital Association**
2. **Michigan State Nurses Association**
3. **Michigan State Medical Society**
4. **Michigan State Dental Association**
5. **Michigan Society of Neurology and Psychiatry**
6. **Michigan Heart Association**
7. **Michigan Academy of Orthopedic Surgery**
8. **Wayne State University College of Medicine**
9. **University of Michigan Medical Service**
10. **Michigan Pathological Society**

11. Michigan Society of Internal Medicine
12. Michigan Chapter, American College of Surgeons
13. Michigan Pediatric Society
14. Michigan Society of Obstetricians and Gynecologists
15. Detroit Roentgen Ray and Radium Society; and be it further

RESOLVED: That any action with regard to the McNerney report by the State of Michigan, either legislative or administrative, be deferred until this further study is completed.

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Ways and Means.

XI—20. MMS BOARD OF DIRECTORS TERM OF OFFICE

FLOYD B. LEVAGOOD, M.D. [Wayne]:

Whereas, this House of Delegates in 1959 passed a resolution limiting the term of office of the members of the Board of Michigan Medical Service, and

Whereas, it is prudent to have a means to continue such limitation of tenure; therefore, be it

RESOLVED: That we reaffirm the action of the 1959 House of Delegates that no member of the Board of Michigan Medical Service should serve more than six years in any seven-year period.

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XI—21 REVISION OF MMS SERVICE CONTRACTS

HERBERT W. DEVINE, M.D. [Wayne]: Revision of Service Contracts, Michigan Medical Service:

Whereas, the experience of Michigan Medical Service of more than twenty years with service contracts has resulted in considerable deficit financing, and

Whereas, under service contracts the fees of participating physicians are set by a third party, and

Whereas, indemnity type policies would resolve these problems; therefore, be it

RESOLVED: That if Public Acts 108 and 109 are reconsidered by the Michigan State Legislature, the Michigan State Medical Society through its Legislative Committee be prepared to submit a bill to change the contracts of Michigan Medical Service from service to indemnity.

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Legislation and Public Relations.

XI—22. RELATIONSHIP WITH OSTEOPATHIC PHYSICIANS

A. R. VANDENBERG, M.D. [Kent]:

Whereas, the House of Delegates of the American Medical Association has determined that relationships between osteopathic and medical physicians should be considered at the state rather than the national level, and

Whereas, many areas of the State of Michigan and a significant percentage of the population of this State are served by osteopathic physicians, and

Whereas, there are some medical and social fields in which mutual understanding and action on the part of the two groups would better serve the people of the State of Michigan; be it

RESOLVED: That the Michigan State Medical Society appoint a committee to determine those relationships between osteopathic and medical physicians that require exploration and the methods whereby such exploration can most profitably be carried out; and be it further

RESOLVED: That the recommendations of this committee be presented to the next meeting of the Michigan State Medical Society House of Delegates, and that the committee be dissolved unless given new instructions at that time.

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Resolutions.

XI—23. DISCONTINUANCE OF ELECTION OF MICHIGAN'S FOREMOST FAMILY PHYSICIAN

N. L. AVERY, M.D. [Kent]:

Whereas, there are a large number of very outstanding family physicians in Michigan who have proven themselves over a period of many faithful years of practice, and

Whereas, it is not possible by the process of election on an annual basis by the House of Delegates to select the truly most outstanding or "Foremost Family Physician" from this group, and

Whereas, this policy inevitably results in disappointment to other splendid men nominated for this position, and

Whereas, this policy adds little to public relations for the medical profession and may well injure such relations in certain areas, and

Whereas, the American Medical Association has recently abandoned a similar policy; therefore, be it

RESOLVED: That the Michigan State Medical Society abandon the policy of electing on an annual basis a "Foremost Family Physician" or other similar post.

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Legislation and Public Relations.

XI—24. INCLUSION OF MDs UNDER NATIONAL SOCIAL SECURITY

J. R. BRINK, M.D. [Kent]: The subject of this resolution is social security.

Whereas, the majority of the members of the Kent County Medical Society voting in an official Kent County Medical Society poll expressed their desire to be included in the national social security system, and

Whereas, the delegates of the Kent County Medical Society have been instructed by their Society to support such resolutions at the September, 1961, meeting of the House of Delegates of the Michigan State Medical Society; therefore, be it

RESOLVED: That the Michigan State Medical Society advocates the inclusion of the doctors of medicine in the national social security system, and further to instruct the Michigan State Medical Society delegates to the American Medical Association to implement and support such action as is necessary on the national level to fulfill the indicated desire of a majority of voting physicians to be included in the social security system.

THE VICE SPEAKER: Dr. Brink's resolution will be referred to the Reference Committee on Resolutions.

XI—25. (Same as No. 7) INCLUSION OF MDs UNDER NATIONAL SOCIAL SECURITY

D. W. MCLEAN, M.D. [Wayne]:

Whereas, the majority of the members of the Wayne County Medical Society who voted in the 1961 spring election indicated their preference that physicians be included under compulsory social security, and

Whereas, the delegates of the Wayne County Medical Society feel responsible to the majority of their constituents; therefore, be it

RESOLVED: That the House of Delegates of the Michigan State Medical Society instruct its delegates to the American Medical Association to introduce and support at the next meeting of the AMA House of Dele-

gates a resolution favoring the compulsory inclusion of physicians under social security.

THE VICE SPEAKER: This likewise will be referred to the Reference Committee on Resolutions.

XI—26. HOSPITAL STAFF PAYMENTS

A. B. LEVANT, M.D. [Wayne]:

Whereas, there has been a large increase in the recorded emergency visits to hospitals in recent years, and

Whereas, the majority of these cases are not true emergencies and could better be treated in the private physician's office at considerable savings to Blue Cross-Blue Shield, and

Whereas, the investigating committee of the Wayne County Medical Society reported to The Council there had been 299,000 emergency visits in the first eight months of 1960 to thirty-four hospitals at a basic payment of $7.50 per visit, and

Whereas, this amounted to a total cost of $2,250,000 to Blue Cross and $3,747,871 to Michigan Medical Service, and it is obvious that the payments to the hospitals by Blue Shield alone exceed its deficit, and

Whereas, it is not desirable that hospitals practice medicine in competition with physicians, and that in over half of the cases the patient is seen only by the intern or resident; therefore, be it

RESOLVED: That the Michigan State Medical Society go on record condemning as unethical practice the collection of, or the attempt to collect, fees for services rendered by interns and residents unless such services are rendered under direct supervision of and upon the responsibility of a staff member of the hospital; and be it further

RESOLVED: That the Michigan State Medical Society implement this resolution through its own organization, and that it use its best efforts to further implement this resolution through the House of Delegates of the American Medical Association, the Joint Commission on Accreditation of Hospitals, and the governing boards of hospitals in Michigan.

THE VICE SPEAKER: This will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XI—27. (Same as No. 10) PUBLICATION OF MMS PARTICIPATING PHYSICIANS

J. F. WENZEL, M.D.:

Whereas, Commissioner Blackford, Insurance Commissioner, State of Michigan, in his recommendations of April 6, 1961, regarding Michigan Medical Service and Michigan Hospital Service advised the Michigan State Legislature to amend Public Acts 108 and 109 so as to require the filing of lists of participating doctors and participating hospitals with each county clerk, with similar lists to be kept on file in each branch office of Blue Shield and Blue Cross located in Michigan, available for public inspection, and

Whereas, at a previous session of the Michigan State Medical Society House of Delegates the publication of lists of participating physicians in Michigan Medical Service has been prohibited; therefore, be it

RESOLVED: That the 1961 House of Delegates reaffirm this prior action.

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XI—28. REPORT OF RELATIVE VALUE SCALE COMMITTEE

F. C. BRACE, M.D. [Kent]:

Whereas, the Michigan State Medical Society in the evaluation of medical services has been guided by a modified form of the California Relative Value Scale, and

Whereas, at the direction of the House of Delegates of the Michigan State Medical Society, the Medical Care Insurance Committee of The Council in 1959 appointed a Subcommittee called the Relative Value Study Committee to make a complete study of the fee relationship problem, with instructions to return its findings to the House of Delegates, and

Whereas, said Relative Value Study Committee, after eighteen months of surveys, hearings, meetings and exhaustive study, has completed a Relative Value Scale fee schedule equitable in the State of Michigan, and

Whereas, this report includes, in addition to a total adjustment in the relationship of fees, two unique factors not utilized by other relative value fee scales, namely, (1) the X and Y factors defined in the report, and (2) the new approach in establishing the relative value of medical case fees, and

Whereas, this report represents an advancement toward an equitable adjustment of the fee relationship problem which perennially plagues the medical profession; therefore, be it

RESOLVED: That the House of Delegates of the Michigan State Medical Society accept and approve the report of the Relative Value Study Committee; and be it further

RESOLVED: That the House of Delegates of the Michigan State Medical Society extend its thanks to the Relative Value Study Committee for its contribution to the Michigan State Medical Society.

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Reports of Special Committees.

XI—12. (Same as No. 29) REVISION OF UNIFORM FEE SCHEDULE FOR GOVERNMENTAL AGENCIES

E. J. TALLANT, M.D. [Wayne]:

Whereas, the Michigan State Medical Society first adopted a uniform fee schedule for governmental agencies in 1949 and revised upward the fee schedule in 1959 in keeping with the devaluation of the dollar and the increase in the family income level in Michigan, and

Whereas, the present fee schedule is based primarily on a $2,500 family income level which today is unrealistic; therefore, be it

RESOLVED: That the House of Delegates of the Michigan State Medical Society recommend updating the uniform fee schedule for governmental agencies with the level of the $5,000 family income of Blue Shield, commonly known as Schedule B; and be it further

RESOLVED: That The Council of the Michigan State Medical Society be instructed to take the necessary action to implement this resolution.

THE VICE SPEAKER: This will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XI—30. TOBACCO AND LIQUOR ADVERTISING IN JMSMS

D. G. MAY, M.D. [Kalamazoo]:

Whereas, the amount of advertising purchased in THE JOURNAL of the Michigan State Medical Society by pharmaceutical houses has dropped, and

Whereas, the costs of publishing THE JOURNAL are defrayed largely by income from advertisers, and

Whereas, it is desirable to maintain the present size and quality of THE JOURNAL and continue its reputation as one of the best medical journals in the country, and

Whereas, THE JOURNAL is read with few exceptions not by the public but by the medical profession only; therefore, be it

RESOLVED: That the House of Delegates recommends and authorizes THE JOURNAL of the Michigan

State Medical Society to accept properly worded advertisements from processors of tobacco and liquor.

THE VICE SPEAKER: This will be referred to the Reference Committee on Miscellaneous Business.

XI—1. ASSOCIATION BETWEEN MSMS AND MMS

J. W. RICE, M.D. [Jackson]:

Whereas, the Articles of Incorporation between the Michigan State Medical Society and Michigan Medical Service have now been in effect more than twenty years and the functions and activities of Michigan Medical Service have changed radically during this time, and

Whereas, many members of the Michigan State Medical Society do not identify themselves with Michigan Medical Service, and

Whereas, both the members of the Michigan State Medical Society and the Michigan Medical Service have been vilified by the press and in public hearings because of their present association, and

Whereas, Michigan Medical Service is appearing more and more as a public utility, with representation on the board of directors demanded by management, labor, agriculture and assorted groups of subscribers, as well as osteopaths and chiropodists; therefore, be it

RESOLVED: That a study committee be appointed by the Speaker of the House of Delegates of the Michigan State Medical Society. This study committee to be concerned with the association between the Michigan State Medical Society and the Michigan Medical Service, and to survey all aspects of this association including the Articles of Incorporation and the participation of the individual physicians of Michigan with Michigan Medical Service. Furthermore, this study committee will report its findings and recommendations at the 1962 annual meeting of the Michigan State Medical Society House of Delegates.

THE VICE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations.

XI—3. CHIROPRACTIC PRACTICE

J. W. RICE, M.D.:

Whereas, chiropractic was established in 1895 by the late D. D. Palmer, a non-medical man, and is a system of therapeutics based on the assumption that disease is caused by interference with "nerve force", and

Whereas, the original belief of chiropractic was that disease can be eliminated by adjusting subluxated spinal vertebrae by hand, and

Whereas, Act No. 145 of the Public Acts of the State of Michigan of 1933, gives legal recognition to chiropractors by providing for the examination, regulation, licensing and registration of Chiropractors, and therein chiropractic is defined as "the locating of misaligned or displaced vertebrae of the human spine, the procedure preparatory to and the adjustment by hand of such misplaced or displaced vertebrae and surrounding bones or tissues", and

Whereas, practitioners of chiropractic have increasingly extended that system to include the practice of specialties designated by chiropractors as proctology, orthopedics, nutrition, psychiatry, cardiology, gynecology, and other fields, and have also added the use of such modalities as light, electricity and vitamins to the original philosophy and practice of chiropractic, and

Whereas, organized chiropractors in Michigan have persistently attempted to expand the legal definition of chiropractic to "a system of treatment of human ailments or disease," to legalize "the practice of chiropractic as now practiced in Michigan and as taught by accredited schools or colleges of chiropractic," and to legally include chiropractic services in various State programs which would result in further demands for recognition of chiropractors by Michigan hospitals and used by chiropractors of Michigan Health Department facilities, and

Whereas, a Select Committee of the Michigan House of Representatives has recommended the passage of legislation in 1962 which would, among other things, classify the services of the doctor of chiropractic as 'physicians services' as applicable to all public health laws in the State of Michigan, and

Whereas, organized chiropractic groups are implementing an intensive campaign based upon public relations techniques, rather than an upgrading of training to establish chiropractic as a profession; now, therefore, be it

RESOLVED: That the House of Delegates of the Michigan State Medical Society direct The Council of the Michigan State Medical Society to provide reliable information about chiropractic practice to all members of the medical profession in the State of Michigan, including but not necessarily limited to data concerning the Michigan chiropractic licensure law, the educational background of chiropractors, chiropractic practices and facilities, chiropractic educational institutions, ailments of people treated by chiropractors, and therapeutic apparatus used by chiropractors; and be it further

RESOLVED: That The Council of the Michigan State Medical Society also furnish such reliable factual information about chiropractic practice and training to the Michigan State Legislature as it deems necessary for that body's deliberations, and to the general public as it deems necessary for the best health interest of the people of Michigan.

THE VICE SPEAKER: This resolution likewise will be referred to the Reference Committee on Legislation and Public Relations.

XI—31. MMS BOARD OF DIRECTORS TERM OF OFFICE

M. A. HAANES, M.D. [Oakland]:

Whereas, the membership of the 1959 House of Delegates at the 94th annual convention passed Resolution No. 15, Section XII, relating to the terms of membership on the Blue Shield Board of Directors, and

Whereas, the House of Delegates resolved that the Board of Directors of Michigan Medical Service be requested to amend its Bylaws so that any member of the Board of Directors who shall have served two consecutive terms of three years each, making a total of six years, be ineligible for re-election for a period of one year immediately following the two consecutive terms, and

Whereas, this request was deemed in the best interest of the membership of the Michigan State Medical Society, and

Whereas, the Board of Directors of Michigan Medical Service by affirmative vote concurred in the wisdom of this request, and

Whereas, any change in this limitation of term of office as affirmed by the House of Delegates would not be in the best interest of the public or the Michigan State Medical Society; therefore, be it

RESOLVED: That the term of office of the members of the Board of Directors of Michigan Medical Service as contained in the Proceedings of the House of Delegates of 1959 be reaffirmed.

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XI—2. FORMATION OF YOUTH FITNESS PROGRAMS (MSMS PRESIDENTS PROGRAM)

H. A. TOWSLEY, M.D. [Washtenaw]:

Whereas, the health of the youth of the nation is of primary importance to national development and security, and

Whereas, the doctors of osteopathy are working in some areas in youth fitness and development, and

Whereas, there is available personnel to advise and

counsel from the State Health Department; therefore, be it.

RESOLVED: That the Michigan State Medical Society, as part of the Presidents Program, contact every county medical society regarding the formation of local Youth Fitness Committees, and urge these Committees to meet with Parent-Teacher Associations, athletic directors and coaches to develop a continuing program of youth fitness on a local level; and be it further

RESOLVED: That to implement this program as a further step in the Presidents Program, this resolution be presented to the House of Delegates of the Michigan State Medical Society in September 1961.

THE VICE SPEAKER: This will be referred to the Reference Committee on Hygiene and Public Health.

XI—9. (Same as XI—32) PUBLIC REPRESENTATION ON BLUE SHIELD BOARD

W. J. YOTT, M.D. [Wayne]:

Whereas, Commissioner Blackford, Insurance Commissioner, State of Michigan, in his recommendations of April 6, 1961 regarding Michigan Medical Service and Michigan Hospital Service advised the Michigan State Legislature to amend Public Acts 108 and 109, Public Acts of 1939, to require that a majority of the members of the governing bodies of both corporations be public members, and

Whereas, Blue Shield in Michigan was initiated and financed by the Michigan State Medical Society, and

Whereas, Public Act 108, Public Acts of 1939, provides for public representation more adequately than any corporation of a public character, and

Whereas, Blue Shield is now the "doctors' plan" and would cease to be the "doctors' plan" if a majority of the governing body of Michigan Medical Service were public members; therefore, be it

RESOLVED: That the House of Delegates of the Michigan State Medical Society go on record as recommending that no change be made in the number of public members on the governing body of Michigan Medical Service.

THE VICE SPEAKER: This resolution will be submitted to the Reference Committee on Medical Service and Prepayment Insurance.

XI.—33. DISCONTINUANCE OF ELECTION OF "MICHIGAN'S FOREMOST FAMILY PHYSICIAN"

(Similar to Nos. 17 and 23)

LEON ROTTENBERG, M.D. [Wayne]:

Whereas, in recent years the Michigan State Medical Society has conducted a yearly contest to determine Michigan's Foremost Family Physician, and

Whereas, there have been times when a choice was difficult to make, and

Whereas, there have been times when doubt was expressed in some quarters that the right choice had been made, and

Whereas, pressure has been exerted in some areas to popularize certain candidates with the result that the final outcome could reflect a popularity contest, with some very worthy individuals dropped from consideration because of no organized campaign, and

Whereas, there is a possibility that such a contest could lead to disharmony and disunity; therefore, be it

RESOLVED: That beginning in 1962 the Michigan State Medical Society discontinue its recent practice of selecting a yearly Foremost Family Physician.

THE VICE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations.

XI—13. PHYSICIANS' USE OF SEAT BELTS

G. A. DRAKE, M.D. [Northern Michigan]:

Whereas, scientific investigation has shown that the use of seat belts will reduce by at least 35% the incidence of severe injuries and deaths in automobile accidents, and

Whereas, the House of Delegates and appropriate committees of the American Medical Association have been advocating their use since 1955, and

Whereas, the American Medical Association, the National Safety Council, and the United States Public Health Service for two years have been making a joint effort to popularize the use of seat belts, and

Whereas, during the coming year this joint effort will be greatly augmented with the adoption of a seat belt campaign by the National Advertising Council, with several millions of dollars of advertising space advocating their use, and

Whereas, all American made cars beginning with the 1962 models will have seat belt attachments as standard equipment, and

Whereas, physicians are looked to by their patients for sound advice on matters of health and accident prevention, and

Whereas, actions speak louder than words, therefore be it

RESOLVED, that this House of Delegates urge every physician in Michigan to use seat belts in his car or cars, and that the members of the House set a good example in this matter, and urge the same example by the members of The Council and the officers of the Michigan State Medical Society.

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Hygiene and Public Health.

XII.—FIFTY-YEAR AWARDS

THE VICE SPEAKER: Each year at this time it is our sincere pleasure to first introduce to you the gentlemen who have served Michigan medicine with longstanding and faithful service, and in addition, who have contributed immensely to it.

Many faces I see before me are extremely familiar, these men having served in numerous capacities in the Michigan State Medical Society and county societies.

Gentlemen, I shall ask you to be seated. When your name is called I shall ask you to stand and face the audience, and your pin will be presented at that time.

This year we have a noteworthy list of candidates who are eligible for this excellent award. I am going to call the names and give you their address and county. Dr. Wiley will present the pins. I shall ask the audience please to withhold applause until the presentation of the pins is completed.

[Fifty-Year Pins were awarded to the following:]

Fred L. Arner, M.D., Bellevue	Eaton County
Joseph A. Bakst, M.D., Detroit	Wayne County
Wyman D. Barrett, M.D., Detroit	Wayne County
Glenn B. Carpenter, M.D., Detroit	Wayne County
Henry R. Carstens, M.D., Birmingham	Wayne County
Howard J. Cummings, M.D., Ann Arbor	Washtenaw County
Ernest W. Dales, M.D., Grand Rapids	Kent County
Harry F. Dibble, M.D., Detroit	Wayne County
R. R. Goldstone, M.D., Detroit	Wayne County
George R. Goering, M.D., Flint	Genesee County
Raymond S. Goux, M.D., Detroit	Wayne County
LeRoy W. Hull, M.D., Detroit	Wayne County
Charles J. Jentgen, M.D., Detroit	Wayne County
Buenaventura Jimenez, M.D., Ann Arbor	Washtenaw County
H. Walter Reed, M.D., Detroit	Wayne County
Robert D. Scott, M.D., Flint	Genesee County
Elisha S. Sevensma, M.D., Grand Rapids	Kent County
Ansel B. Smith, M.D., Grand Rapids	Kent County
G. Howard Southwick, M.D., Grand Rapids	Kent County
Henry J. VandenBerg, M.D., Grand Rapids	Kent County

XI.—34. CIVIL DEFENSE

W. C. Beets, M.D. [Kent]:

Whereas, in the National Plan for Civil Defense and Defense Mobilization Annex 18, National Health Plan, issued December 1959, it states:

"Sect. A. Health services are functions performed to prevent the impairment of, to restore, and to improve the physical and mental condition of human beings. The term as used herein includes the **development of a capability for the emergency performance of those functions.**

"Sect. III. General Responsibilities and Organization.

B. The state and local health departments have statutory primary health roles at their respective levels under the direction of the Chief Executive of the state or political subdivision. With **coordination by state and local civil defense directors, they will provide leadership in the preparation and execution of state and local civil defense health plans.**

D. Every physician . . . is responsible for taking an active part in civil defense and defense mobilization planning and training in his community.

"Sect. IV. Functions.

A. Organizations and Planning.

1—Objective:

(a) To identify and if necessary establish, at all levels of government, organizations to discharge health operational responsibilities in time of a national emergency.

(b) To assure **effective use of available health resources in event of a national emergency.**

2—Actions Required:

(e) Guidance and assistance to local communities by states to develop plans and programs that are consistent with state **operational survival plans contiguous areas in or out of the state"**, and

Whereas, representatives from Region IV (Ottawa, Muskegon, Oceana, Mason, Mecosta, Osceola, Lake, Newaygo, Ionia, Montcalm and Kent Counties) organized April 28, 1961 according to the "Suggested Procedure to Establish Medical Civil Defense Regional Organization," prepared by the Committee on National Defense of the Michigan State Medical Society, and

Whereas, this document states, "A committee structure which covers all communities, counties, and professional organizations, and which culminates in effective working organization," and

Whereas, an accompanying document is "Recommendations on Medical Civil Defense," and

Whereas, this further states: "A medical civil defense director and co-director should be elected by the regional executive committee **and their status approved and confirmed by the state health commissioner"**, and

Whereas, the Executive Committee of Region IV met with the Michigan State Medical Society Committee on National Defense, with representatives of the Michigan Office of Civil Defense and the Michigan Department of Health on September 13, 1961, and

Whereas, their representatives were asked to appoint the duly elected Chairman and Co-Chairman of the Executive Committee of Region IV as Medical Civil Defense Director and Co-Director of Region IV, and

Whereas, the Executive Committee was told that no such authority existed, was unnecessary, and that the primary mission of civil defense was to stimulate interest in self-preservation, education and training programs, and

Whereas, in the opinion of the Executive Committee of Region IV, such lack of top-level organization and direction can only lead to bitter chaos, suffering, loss of life, effort, time and money in case of a national disaster, and

Whereas, such a result will reflect directly on the medical profession and MSMS will be held responsible; therefore, be it

RESOLVED: That the Michigan State Medical Society seek authority from the Federal Office of Defense Mobilization to—

1. Direct the Michigan State Office of Civil Defense and Michigan Department of Health to develop a precise, competent chain of command to correlate medical civil defense plans on a State, area, regional and local basis to provide cohesive area control in time of attack and uniform policy for preparation;
2. that State and local governmental officials be made aware of the urgency of the status of civil defense in the State of Michigan so that they might augment all their resources to expedite civil defense organization and planning;
3. that the following interested and responsible civic and professional groups be informed of the lack of responsibility in the top echelons in the Michigan civil defense structure, and made aware of the stand of MSMS:
   1. Dentists
   2. Pharmacists
   3. Lawyers
   4. Osteopaths
   5. Mayors and governing bodies in the communities in target areas
   6. Michigan Department of Health
   7. Michigan Office of Civil Defense

The Vice Speaker: This resolution will be referred to the Reference Committee on National Defense and Disaster Planning.

XI—11. RE-ENDORSEMENT OF MICHIGAN UNIFORM FEE SCHEDULE FOR GOVERNMENTAL AGENCIES

W. C. C. Cole, Jr., M.D. [Wayne]:

Whereas, in the State of Michigan there has been a uniform fee schedule since 1949, developed by the Michigan State Medical Society for use by governmental agencies in the payment of private physicians for their services, and

Whereas, certain governmental agencies in Michigan, notably certain county boards of welfare, not only have failed to utilize the uniform fee schedule but have been paying for medical services at a rate considerably below this schedule, and

Whereas, in their dealings with nonmedical contractors these governmental agencies usually pay the prevailing rate for goods and/or services, and

Whereas, this discrimination against the medical profession is unwarranted and unfair; therefore, be it

RESOLVED: That the House of Delegates of the Michigan State Medical Society strongly recommends that all governmental agencies shall pay no less than the uniform fee schedule in contracts with Michigan physicians; and be it further

RESOLVED: That copies of this resolution be forwarded to the appropriate officers of all governmental agencies in Michigan that may utilize services of doctors of medicine.

The Vice Speaker: This resolution will be referred to the Reference Committee on Legislation and Public Relations.

XI—4. GOVERNMENTAL AGENCY REIMBURSEMENT TO HOSPITALS

R. V. Taylor, M.D. [Jackson]:

Whereas, certain governmental agencies have established policies which remunerate hospital facilities caring for patients at less than the actual cost of such care, and

Whereas, such shortsighted policies make proper hospital care of these patients an unusual hardship for hospitals which are otherwise adequately assuming their proper community obligations, and

Whereas, such policies may also obstruct the proper implementation of measures such as the Kerr-Mills assistance to the aged; therefore, be it

RESOLVED: That the Michigan State Medical Society strongly and urgently recommend that all governmental agencies, including welfare agencies, reimburse all hospitals which are approved by the Joint Commis-

sion on Accreditation, for not less than the actual per diem cost of necessary hospitalizations of all patients for whom they may be responsible; and be it further

RESOLVED: That determination of such costs will be based on the findings reported by the quarterly Blue Cross audits.

THE VICE SPEAKER: This will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XI—5. EXPANSION OF RELATIVE VALUE STUDY

R. V. TAYLOR, M.D. [Jackson]:

Whereas, the Michigan State Medical Society has determined a Relative Value Index which lists many services of patient care, and

Whereas, there may be need to revise or to expand this listing so as to include new procedures or services; therefore, be it

RESOLVED: That the Michigan State Medical Society shall establish a reasonable method by which such changes or additions can be rapidly incorporated into any listing of procedures of patient care; and be it further

RESOLVED: That any listing of procedures of medical care on the part of the Michigan State Medical Society shall always include at least all of the procedures to be listed by the American Medical Association in the forthcoming Descriptive Coding of Medical Services which the House of Delegates of the American Medical Association has approved.

THE VICE SPEAKER: This will be referred to the Reference Committee on Special Committees.

XI—6. FEE FOR SERVICE ASSUMED BY GOVERNMENTAL AGENCY

R. V. TAYLOR, M.D. [Jackson]:

Whereas, there is an increasing number of patients receiving medical care through expanding governmental agencies, and

Whereas, a number of these patients are not and may not be indigent, and

Whereas, governmental agencies are accustomed to obtaining all other items and services for fair and reasonable remuneration; therefore, be it

RESOLVED: That whenever any governmental agency assumes responsibility for the medical care or reimbursement for such care for any individual, then such an individual will not be considered indigent, and the fair and average fee for medical service will prevail.

THE VICE SPEAKER: This resolution will go to the Reference Committee on Legislation and Public Relations.

XI—14. USE OF MICHIGAN RELATIVE VALUE SCALE

R. V. TAYLOR, M.D. [Jackson]:

Whereas, the Michigan State Medical Society has determined a Relative Value Index of physicians' services, and

Whereas, the Michigan Relative Value Scale is a fair and equitable mechanism for the basis of contractual negotiations for medical services on the part of the Michigan State Medical Society; therefore, be it

RESOLVED: That the Michigan Relative Value Scale be approved as the basis for negotiating fee schedules with all governmental agencies; and be it further

RESOLVED: That Michigan Medical Service be instructed to use the Michigan Relative Value Scale in any and all contracts which the Michigan State Medical Society is expected to implement on a service basis.

THE VICE SPEAKER: This will be referred to the Reference Committee on Reports of Special Committees.

XI—35. INTERRELATIONSHIP OF SECTIONS IN THE MICHIGAN RELATIVE VALUE STUDY

R. V. TAYLOR, M.D. [Jackson]:

Whereas, the Michigan Relative Value Study is based on standard or average fees for service, and

Whereas, the interrelationship as determined in this study between the sections of surgery, medicine, radiology and pathology is valid only at the level of the standard or average fee; therefore, be it

RESOLVED: That whenever the value of the unit is to deviate from the average value used in determining the Michigan index, then the Michigan State Medical Society must recognize that the interrelationship between the sections of surgery, medicine, radiology and pathology is no longer valid; therefore, be it further

RESOLVED: That whenever the value of the unit deviates from the average, that a different value for the unit must be used in implementing each section.

THE VICE SPEAKER: This resolution will be referred to the Reference Committee on Special Committees.

XI—36. UNIT VALUES AND RELATION TO DEPARTMENT OF LABOR COST OF LIVING INDEX

A. C. STANDER, M.D. [Saginaw]:

Whereas, the unit value of the Relative Value Scale has the danger of becoming fixed or reduced or otherwise manipulated, and

Whereas, in an expanding inflationary economy this may result in a relative reduction of value that is neither fair, just nor economically sound, and

Whereas, in labor and industrial bargaining the principle of cost of living indexes of the Department of Labor has been incorporated as an economic fact; therefore, be it

RESOLVED: That the House of Delegates of the Michigan State Medical Society go on record that any unit value in any fee schedule be so administered that it too will reflect and be influenced by the cost of living indexes of the Department of Labor.

THE VICE SPEAKER: This also will be referred to the Reference Committee on Special Committees.

XI—37. COST OF HEALTH CARE

M. L. LICHTER, M.D. [Wayne]:

Whereas, the cost of health care is recognized by the American physician to be an integral part of the total community health problem, and

Whereas, when the Michigan State Medical Society created Michigan Medical Service the physicians of Michigan gave concrete and pioneering evidence of their recognition of the need to serve the total community, and

Whereas, Michigan Medical Service has served as a program for meeting community need as well as upholding the traditions of free medical practice; therefore, be it

RESOLVED: That this House of Delegates reaffirm its continued belief in the community rating principle and in the service principle as the cornerstone of American medical economics; and be it further

RESOLVED: That this House of Delegates commend Michigan Medical Service for its steadfast and exemplary adherence to the standards and principles of the voluntary practice of medicine in this country.

THE VICE SPEAKER: This will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XI—38. CHANGE IN MSMS BYLAWS

(Ethics Committee's Recommendations)

W. J. ZIMMERMAN, M.D. [Oakland]:

Whereas, Sections 10, 11 and 12 of Chapter VI of the Constitution and Bylaws of the Michigan State Medical Society, having to do with recommendations by

county society ethics committees for discipline of members, are so constructed that the ethics committee may initiate action which on occasion may be contrary to the opinion and recommendation of the governing body of the society, and

Whereas, present construction of these Sections permits such controversial recommendations to be brought before the society membership in open meeting, and

Whereas, the governing body of the component societies is the elected representatives of the society and has the legal responsibilities inherent in such status; they should have the right to accept, reject or modify the action of the ethics committee, which is an appointed body, before these actions can be discussed in open meeting of the membership; therefore, be it

RESOLVED: That the Committee to Review the Constitution and By-laws modify Sections 10, 11 and 12 of Chapter VI of the Michigan State Medical Society Constitution and By-laws to effect that all recommendations for discipline by the ethics committee be submitted to the governing body of the society for its consideration and action before they may be presented to an open meeting of the society.

THE VICE SPEAKER: This resolution will be submitted to the Reference Committee on Constitution and Bylaws.

XI—8. MSMS COUNCIL MEETINGS

R. R. COOPER, M.D. [Wayne]:

Whereas, the Michigan State Medical Society has certain financial obligations which cannot be disregarded, and

Whereas, the indebtedness has resulted in certain economic measures being carried out, and

Whereas, the Michigan State Medical Society has requested suggestions whereby the above can be carried out, and

Whereas, the cost of holding the summer meeting of The Council of the Michigan State Medical Society at Mackinac Island is excessively expensive; therefore, be it

RESOLVED: That The Council of the Michigan State Medical Society make maximum use of its new headquarters in East Lansing for its meetings; and be it further

RESOLVED: That, beginning in 1962, the Mackinac Island meeting be discontinued and subsequent summer meetings of The Council be held at the headquarters of the Michigan State Medical Society.

THE VICE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations.

XI—39. VOLUNTARY PREPAYMENT FUNDING PLANS

H. A. FURLONG, M.D.:

Whereas, plans for voluntary prepayment of medical service were originally conceived by the medical doctors of Michigan and encouraged and assured by their pledged guarantee of professional services, and

Whereas, voluntary prepayment plans, now providing substantial and increasing coverage for the people of the State of Michigan and the entire nation can better assure the highest possible quality of medical care than can any government mechanism, and

Whereas, medicine in support of the Kerr-Mills Act has met the problem of care of those aged persons who are in financial need, but recognizes that a substantial number of the public may desire to provide for the medical care in their retirement years by prepayment during their productive years, and

Whereas, due to a lessening of earned income during retirement there is need for such a program, and it is desirable that this need be met on a voluntary basis under the aegis of the medical profession rather than on a compulsory basis by government; now, therefore, be it

RESOLVED: That the Michigan State Medical Society, recognizing the continuing efforts of Michigan Medical Service and of qualified health insuring agencies to increase their coverages, request them to study the feasibility of inaugurating a voluntary prepayment health insurance or medical service program(s) which would provide a plan whereby funds might be voluntarily set aside by subscribers to the plan during their productive years for the purpose of assuring medical care during their retirement years; and be it further

RESOLVED: That the Michigan State Medical Society, representing the medical doctors of Michigan, pledge its best services to secure from the Michigan doctors of medicine, individually and severally, their cooperation in underwriting such a plan if implemented in accordance with the principles of voluntary prepayment previously approved by this House of Delegates.

THE VICE SPEAKER: This resolution will be submitted to the Reference Committee on Medical Service and Prepayment Insurance.

XI—40. RELATIONSHIP WITH OSTEOPATHIC PHYSICIANS

C. I. OWEN, M.D. [Wayne]:

Whereas, the American Medical Association House of Delegates at its June 1961 meeting resolved that with regard to the relationship between doctors of medicine and doctors of osteopathy "policy should now be applied individually at state level according to the facts as they exist," and

Whereas, in Michigan there are a number of doctors of osteopathy who do practice on the same scientific principles as those adherred to by members of the medical profession, and voluntary professional relationship with them could be deemed ethical according to the American Medical Association, and

Whereas, the American Medical Association has placed the burden upon individual state medical societies to determine the facts in each state and to set up the ground rules for such ethical relationship; therefore, be it

RESOLVED: That The Council of the Michigan State Medical Society be requested to investigate the problem of the relationship between doctors of medicine and doctors of osteopathy; and be it further

RESOLVED: That The Council of the Michigan State Medical Society be directed to present its findings and recommendations on this problem at the next regular meeting of the House of Delegates.

THE VICE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations.

XI—41. EDUCATION OF OSTEOPATHIC PHYSICIANS

A. H. WHITTAKER, M.D. [Wayne]:

Whereas, national consideration is being given to admitting osteopaths to hospital staff privileges in the nation's hospitals, and

Whereas, by legislative permission such action has been taken in at least one state, and

Whereas, the House of Delegates of the American Medical Association has considered recognition of osteopaths as qualified physicians, and

Whereas, previous studies have discovered that training as carried out in the schools of osteopathy is inadequate, and

Whereas, this deficiency is emphasized by the lack of an osteopathic medical literature and by an absence of contributions to medical knowledge or scientific achievement, and

Whereas, consideration is being given to this problem without a study or informative communication to the state medical societies, to which determination has been referred; therefore, be it

RESOLVED: That the Michigan State Medical Society delegates to the American Medical Association arrange for a study of the osteopathic medical colleges, their curricula, graduate education with particular attention to resident training, and that the study be carried out by qualified medical educators, and that

these findings be reported to the physicians of the country and to the public.

THE VICE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations.

XI—42. CONTACTS WITH LEGISLATORS

L. A. DROLETT, M.D. [Ingham]:

Whereas, the Ingham County Medical Society saw fit to send four of its members to Washington, D. C., for the purpose of discussing the legislative process with elected congressmen and senators from the State of Michigan, and

Whereas, legislation having great significance as it concerns the present and future practice of medicine in this country is being discussed in the Congress, and

Whereas, the four members of the Ingham County Medical Society found that congressmen and senators were eager to discuss these important problems and to exchange information with physicians, and

Whereas, practicing physicians do not have the opportunity to meet frequently with our elected representatives; therefore, be it

RESOLVED: That the county medical societies in the State of Michigan, individually or in concert, be encouraged to send one or more members of their societies to Washington, D. C., during the period that the Congress is in session, to meet with their elected representatives for the purpose of discussing legislation that will affect the practice of medicine in these United States.

THE VICE SPEAKER: I will refer this resolution to the Reference Committee on Legislation and Public Relations.

XI—15. HONORARY MEMBERSHIP TO JOHN REID OF LANSING

L. A. DROLETT, M.D.:

Whereas, John Reid of Lansing has worked unselfishly for more than twenty years to support the principles of medically-sponsored voluntary prepaid medical care, and

Whereas, Mr. Reid as President of the Lansing Federation of Labor from 1924 to 1935, and as Secretary of the Michigan Federation of Labor from 1935 to 1948, helped in his efficient way to effectively explain the voluntary prepayment medical plan to his fellow labor leaders and members, and

Whereas, Mr. Reid during the past year completed his twentieth year of valued service as a member of the Board of Directors of Michigan Medical Service; therefore, be it

RESOLVED: That the Michigan State Medical Society bestow upon Mr. Reid an Honorary MSMS Membership in appreciation and gratitude on behalf of the thousands of doctors of medicine in Michigan and millions of residents who have benefited from the doctor-sponsored, voluntary plan of group medical care in this State.

THE VICE SPEAKER: This will be referred to the Reference Committee on Miscellaneous Business.

XI—43. HEALTH MAINTENANCE OF EMPLOYEES IN INDUSTRY

R. L. NOVY, M.D. [Wayne]:

Whereas, the Occupational Medicine Committee of the Michigan State Medical Society has petitioned The Council to approve a program to improve health maintenance in industry, and

Whereas, the Committee has been instructed to submit in writing a plan for such maintenance, and

Whereas, the Committee recommends the plan, hereby submitted in brief outline, be authorized by the House of Delegates; therefore, be it

RESOLVED: That the House of Delegates approve the plan and transmit it to The Council with qualified approval contingent upon the acquiescence of The Council in the details of the plan.

THE VICE SPEAKER: This will be referred to the Reference Committee on Hygiene and Public Health.

XI—44. CHANGE NAME OF MSMS COMMITTEE ON OCCUPATIONAL MEDICINE

H. A. HOWES, M.D. [Wayne]:

Whereas, the counterpart committee of the American Medical Association is known as the Council on Occupational Health; therefore, be it

RESOLVED: That the name of the Occupational Medicine Committee be changed to Committee on Occupational Health.

THE SPEAKER: This will be referred to the Reference Committee on Standing Committees.

R. W. TEED, M.D.: I would like to read Resolution No. 17 as printed:

XI—17. DISCONTINUANCE OF ELECTION OF MICHIGAN'S FOREMOST FAMILY PHYSICIAN

Whereas, the awarding of a recognition of Michigan's Foremost Family Physician has been carried out for a number of years by the Michigan State Medical Society in concert with the American Medical Association award as General Practitioner of the Year, and

Whereas, the American Medical Association has ceased to make the award of General Practitioner of the Year, and

Whereas, it is valuable to the medical profession to recognize a doctor each year who symbolizes, in his person and in his work, the progress and service of the medical profession; therefore, be it

RESOLVED: That the award of Michigan's Foremost Family Physician be discontinued, and that in its place the House of Delegates select and properly award a Medical Doctor of the Year; and be it further

RESOLVED: That nominations for this award be made by county medical societies or by such other groups as may be subsequently determined, and that the method of final selection be determined by the Speaker of the House of Delegates in consultation with the MSMS Awards Committee.

THE VICE SPEAKER: This will be referred to the Reference Committee on Legislation and Public Relations.

XI—16. EXPANSION OF THE COUNTY MEDICAL EXAMINER SYSTEM

L. A. DROLETT, M.D.:

Whereas, the House of Delegates of the Michigan State Medical Society resolved in 1950 to initiate action in legislating a change in the coroner system to adopt a system of appointed medical examiners who are qualified physicians, and

Whereas, through the cooperative efforts of law enforcement agencies and other interested parties with the Michigan State Medical Society, Public Act No. 181, Public Acts of 1953, was adopted by the Michigan Legislature, providing for the creation of the office of county medical examiner, at the option of the several counties, effective January 1, 1954, and

Whereas, approximately 25 per cent of the counties of Michigan have exercised such option, establishing the medical examiner system which, through the assignment of responsibility to qualified physicians, assures competency in getting necessary medical facts for the administration of justice and the preservation of public safety, and

Whereas, the extension of the benefits accruing from adoption of the qualified medical examiner system to all of the people of Michigan is consistent with the high objectives of the Michigan State Medical Society's Presidents Program; now, therefore, be it

RESOLVED: That the Michigan State Medical Society initiate legislation in the Michigan Legislature (1) requiring the extension of the medical examiner system

to all counties of Michigan, (2) creating the office of State Medical Examiner, and (3) providing under his jurisdiction a crime laboratory for the instruction and use of the law enforcement agencies as may benefit from its facilities, and for the benefit of Michigan citizens who may be defendants under law.

THE VICE SPEAKER: I shall refer this to the Reference Committee on Legislation and Public Relations.

XI—45. MAJOR MEDICAL INSURANCE PROGRAM

HAROLD F. FALLS, M.D. [Washtenaw]:

Whereas, the Michigan State Medical Society provided a group health and accident insurance program for its members since 1955, and now 2,027 members are enrolled, and

Whereas, the Michigan State Medical Society has provided a group life insurance program since 1959 and now has 1,411 members enrolled, and

Whereas, a number of members have requested that the Michigan State Medical Society provide a major medical insurance program which would provide added health insurance protection for the MSMS member and his family, and

Whereas, the MSMS Committee on Insurance has given consideration to this possibility at its meetings this year; therefore, be it

RESOLVED: That the House of Delegates authorize The Council to make available to all MSMS members a major medical insurance program when a program can be developed which meets with the approval of the Committee on Insurance and the MSMS Insurance Consultant.

THE SPEAKER: This will be referred to the Reference Committee on Medical Service and Prepayment Insurance.

XIII. REPORTS OF COMMITTEES OF THE HOUSE OF DELEGATES

1. *Permanent Advisory Committee on Fees.* The report of this committee is found in your Handbook. It is a very short report.

2. *Committee to Study Problem of Malpractice.* The report is in your Handbook.

3. *Committee to Study the Problem of Indigent Doctors of Medicine.*

These three committee reports will be referred to the Reference Committee on Special Committees.

4. *Committee to Review the Constitution and Bylaws.* This report will be referred to our Reference Committee on Constitution and Bylaws.

XIV. REPORTS OF MSMS STANDING COMMITTEES

All of the reports of these committees are printed in the Handbook and will be referred to the Reference Committee on Standing Committees.

XV. REPORTS OF MSMS SPECIAL COMMITTEES

1. *Advisory Committee to the Michigan State Medical Assistants Society.* The report will be sent to the Reference Committee on Miscellaneous Business.

2. *Advisory Committee to the Woman's Auxiliary.* The report wil be sent to the Reference Committee on Miscellaneous Business.

3. *Scientific Radio Committee.* This report also will be referred to the Reference Committee on Miscellaneous Business.

4. *Study on Prevention of Highway Accidents.* This report also will be referred to the Reference Committee on Miscellaneous Business.

5. *The Medical Care Study Committee.* As you will remember, this is a committee authorized by last year's House of Delegates to be appointed by the President in a broad area of relation concerning social and economic factors in the practice of medicine. Dr. Falls has been chairman of the committee, and I am going to ask him to give his report at this time.

XV—5. MEDICAL CARE STUDY COMMITTEE

H. F. FALLS, M.D. [Washtenaw]: The Medical Care Study Committee, authorized by the 1960 House of Delegates, was appointed by MSMS President K. H. Johnson. This Committee was delegated the task "to prepare a plan for long-range study of social, political and economic trends likely to affect future medical care in Michigan."

This Committee, furthermore, was charged to report its recommendations as to direction, scope and costs of such a continuing study at the next (this) annual session of the House of Delegates.

At the onset of its deliberations this Committee was faced with a myriad of possible avenues of exploration, but resolved to seek answers to the following major considerations:

1. Securing unanimity of purpose of MSMS membership and establishing positive attainable goals for future medical care in Michigan.

2. Immediate establishment of an MSMS Department of Economics and securing the services of a qualified socio-economist.

Subsequent meetings of your Committee were devoted to exploration of ways and means of accomplishing such goals.

The May 3 meeting was held with Professor C. T. Hardwick, Director of the Institute for Business Services, affiliated with the University of Detroit. The possibility of securing an economic adviser and consultant services for MSMS was thoroughly reviewed with this excellent and capable representative.

On June 18, at the new MSMS headquarters, a meeting was held with the officers and representatives of the interested major specialty organizations in the State. Their response was encouraging, and their suggestions for future action of your Committee were extremely constructive.

These meetings, as well as numerous contacts with allied and interested organizations concerned with medical care in Michigan, led to the adoption of the following recommendations which are submitted for your deliberation:

1. The immediate creation of a standing six-man committee, plus chairman, of MSMS on medical socio-economics. The membership of this committee should be appointed by the President of the Society of MSMS and to serve for a term of three years.

2. The immediate establishment of a long-needed MSMS Department of Socioeconomics with an initial budget of approximately $30,000.

3. An immediate application of appropriate assessment on the membership to pay for this needed and additional department of service if deemed necessary by the Ways and Means Committee.

4. Immediate employment of a socioeconomist to head this MSMS Department.

The Committee further recommends that the economist have his headquarters in Detroit near research facilities and sources.

5. Urge and invite all specialty organizations and component medical societies to create, immediately, socio-economic committees.

(a) Each of these committees are to be considered, in effect, subcommittees of the parent MSMS Socio-economic Committee.

(b) Each of these committees may have direct contact with parent Committee on request of the subcommittee or on invitation of the parent Committee.

(c) An immediate assignment for each of these committees is to create "Goals for Future Medical Care in Michigan."

At the suggestion of your Study Committee, The Council of the Michigan State Medical Society authorized

the expenditure of money to secure professional consultant services to aid this Committee in its study. The services of the Institute of Business Services of the University of Detroit were secured. Evaluation of certain research studies dealing with hospital and medical care was instigated. A compilation of the consultants' findings and recommendations was made available to members of The Council of MSMS and is also available for the deliberations of the reference committee to which this report is to be sent.

The advice and services of many of medicine's allies in the health and insurance fields have been sought and obtained by your Committee. Continued research and study in the medical health care fields as a combined effort will be the product of these mergers of effort.

Such reports as the mountainous University of Michigan Study of Hospital and Medical Economics, as well as reports of somewhat similar nature, are under present and continuous study. Their recommendations and conclusions are being carefully weighed with and against accepted MSMS standards and concepts of medical care, and specifically in light of a conservative and private enterprise philosophy.

H. F. Falls, M.D., *Chairman*
D. L. Kessler, M.D.
L. R. Leader, M.D.
O. B. McGillicuddy, M.D.
J. W. Rice, M.D.
G. W. Slagle, M.D.
D. N. Sweeny, Jr., M.D.

The Speaker: This report of the Medical Care Study Committee will be referred to the Reference Committee on Ways and Means.

X. REPORTS OF THE COUNCIL

H. J. Meier, M.D. [Branch]: The annual report of The Council is printed in your Handbook, and I need not read it to you at this time. I would like to make a few remarks on the material in some of the sections, after which I will present the supplemental report of The Council, which consists of action taken since the printing of the annual report.

On the scientific side, the achievements in this field have been great, as stated in that section of the report. The committees and individuals who are responsible for these achievements are to be commended.

Under Finances, an up-to-the-minute report will be given in the supplemental report.

In The Journal section you will note that it has been necessary to curtail expenses and reduce the size of The Journal because income from advertising has fallen off since the Kefauver Committee drug hearings.

Under Organization, reference is made to recommendations appearing at the end of the report relative to Councilor conferences, general meeting at the Annual Session, Relative Value Scale, and magazine articles unfavorable to medicine.

Under Governmental Agencies, mention is made of the University of Michigan Study of Hospital and Medical Economics (the McNerney report) and considerations by the Medical Care Study Committee. A recommendation on this is listed later on in the report.

A review of health care for the aged is taken up under the section also, and a recommendation appears embodying the thought on the last paragraph of Section 2 under Voluntary Agencies. I call your attention to Section 4, Statement of Policy re Podiatry. I shall read the Section:

4. State of policy re podiatry.

Recent contacts were made with the Michigan Association of Orthopedic Surgeons and the Detroit Academy of Orthopedic Surgery enlisting their comment re MSMS statement of policy on podiatry which embodies the principles set forth in the statement of the American Academy of Orthopedic Surgery and the Joint Commission on Accreditation of Hospitals. If approved by the Michigan groups, the statements re podiatry will be presented to the House of Delegates for its consideration.

This was approved, and a resolution on the subject will be in the supplemental report. I would have you keep this section in mind when the resolution is read, because the resolution is broader in scope, although it includes podiatry, and the resolution takes in the policy set forth by the AMA House of Delegates.

Under the section on Committees you will find pertinent information on activities of the committees of The Council. Again these are printed to save time of the House of Delegates. Reports of committees not found here will be in the supplemental report.

You will note that one of the last duties of the Big Look Committee was to make a final inspection of the new headquarters building. Special commendation goes to the Committee for a job well done; also, commendation goes to your Speaker for his organization of the Open House activities at the headquarters building yesterday.

As one reads through these committee reports one appreciates the time spent and the valuable material that results from these efforts.

Under Legal Matters, your Legal Counsel, Lester P. Dodd, is kept busy on opinions asked for by individual groups of doctors throughout the State. He is a great help at our Council meetings, which he attends regularly and gives formal reports.

Under New MSMS Headquarters Building is some informative material; likewise, under Medicare and Veterans Administration Hometown Medical Care Program.

A progress report on group insurance program will be made to the supplemental report.

Mrs. Paul Ivkovich, President of the Woman's Auxiliary, has a comprehensive report and commends the Auxiliary for the fine work it is doing.

Public Relations, you will notice, is a very busy department in our State Society, and has grown into a mature, smooth-functioning unit. I can remember when such activity was looked upon by the doctor of medicine as something one had better stay out of.

Legislative Activity is tabulated here under State and Federal, and a recommendation follows covering this activity.

Under the section on Matters Referred for Action by the 1960 House of Delegates is listed the action taken on these matters. In Section 12 is information regarding the MCCC Fee Schedule, and a recommendation on the fee schedule for Governmental Welfare Agency follows.

Last is listed the recommendation by The Council, and we hope you think well of it. A tenth recommendation will be presented in the supplemental report.

Now to the supplemental report.

On September 1, 1961, the membership of the Michigan State Medical Society totaled 6,755 as compared with a total of 6,673 at the same time last year.

At this time, I beg permission of the House of Delegates to call upon the Chairman of our Finance Committee, Dr. O. B. McGillicuddy, to give you in capsule form exactly what the accounts and figures in the financial report represent, the amount of money we have on hand, where it is, and what we have to do with it.

X—1. REPORT OF CHAIRMAN OF FINANCE COMMITTEE

O. B. McGillicuddy, M.D. [Ingham]: As Chairman of the Finance Committee of The Council, it is my duty to give to you as clear a picture of our financial status as is possible in a short period of time.

Bob Roney, our splendid accountant, is my authority for the figures used. I would encourage you to make notes, and I shall attempt to give you even figures to facilitate your memoranda. If you become lost in a welter of decimal points I shall be happy to confer with any of you individually during the next two days and attempt to answer any and all questions.

Our total income from December 1, 1960 through August 31, 1961—nine months—has been $561,323. We shall have very little income the last three months of our

year. Included is $90,557 allotted to the new headquarters. The latter sum has been acquired by the allotment of $15 from each full dues paid and pro rated portion of lesser dues to headquarters. This $15 is not an assessment but is part of the $75 dues, and is similar to the $1.50 allotted to THE JOURNAL, the $9.25 allotted to public education, the $4.50 to public service, the $6.25 to professional relations, the $1.50 to the contingency fund, the $1 to the Beaumont Memorial Foundation, and the $36 which remains for the General Fund.

A portion of this $90,557 has been and will have to be used in the future for maintenance of headquarters. With no previous experience in the new headquarters, the Budget Committee of The Council estimated our maintenance and tax expense at $47,750. I am very happy to report that this estimate was much too high, and after six months' occupancy experience, it will probably run in the neighborhood of $35,000 a year including all taxes.

With this maintenance expense, we shall then have, starting next year, approximately $90,000 headquarters income minus $35,000 expense, or $55,000 to be used for the reduction of our notes at the bank. Borrowing money as we need it, and paying off notes in the spring when our dues are accumulating, a financial juggling which the bank thoroughly approves, has saved us much interest.

With the contractors completely paid except for a minor $2,500 retainage, we owe $100,000 at present but shall need another $100,000 to finish out the year's operations.

This means that unless an emergency arises, we may well retire our debt starting in 1962 at the rate of $55,000 a year, or in less than four years instead of the earlier estimated six years. Our credit is of the best, however, and at any time the House of Delegates may see fit to use funds for emergencies and postpone the debt payments.

As you know, we are maintaining a reserve in government bonds of $57,000, of which $25,000 is earmarked for Public Education Reserve and the remainder, $22,000, as General Fund Reserve. The Finance Committee of The Council believes that both of these reserves should be built up as rapidly as possible; and if, as we hope, our General Fund has a gain at the end of the year, we shall add it to these reserves.

This gain will not be the $17,000 the Budget Committee had projected. Several factors are responsible for a smaller gain than anticipated. One factor has been a salary increase to several of our employees in the intermediate brackets. Another serious dislocation of our budget has been the Kefauver-precipitated $10,000 loss in advertising revenue from THE JOURNAL.

A third factor this year has been the expenditure, partly from revenues and party from notes, of $69,000 over the $90,000 collected from dues to finish paying for the headquarters, the furniture and the dedication ceremony.

A fourth factor has been the spending of $5,000 of the $10,000 authorized by this House of Delegates in the emergency meeting of last April. We are trying to meet this expense from revenues and save the Public Education Reserve.

Next year, with the contractors paid, our bookkeeping will be much less hectic, and it is hoped our gain may be much larger.

In general, our various departments and committees have kept within their budgets fairly well in spite of increasing costs. Although economy has been emphasized throughout our organization, I do not believe our efficiency has suffered.

Organization

A conference was held in every councilor district during the past two months, to transmit the latest information on Michigan State Medical Society activities to delegates, alternate delegates and component society officials. A chart of these meetings indicating dates and places is part of the addenda to this report.

Michigan Medical Service

An up-to-date report of this corporation, including financial data, will be presented to you at the meeting of Michigan Medical Service membership tomorrow, Tuesday, September 26, at 2 p.m. in the Ballroom of the Pantlind Hotel. All MSMS delegates are members of Michigan Medical Service Corporation and are expected to attend this important annual meeting.

Michigan's Foremost Family Physician of 1961

Selection of one of our Michigan practitioners for this important award is the privilege of the MSMS House of Delegates. According to established procedure, The Council selected three nominees, from which the House of Delegates selected Dr. George P. Raynale of Birmingham.

MSMS Group Insurance Programs

1. *MSMS Group Term Life Insurance Program as of September 1, 1961.*—The report for the past twelve months was as follows:

Number of lives now in force	1,411
Volume of insurance in force	$12,466,000
Claims paid to date	$202,000
Pending death claims	$15,000
Conversions to permanent insurance to date	24 lives
	$76,500 amount

2. *MSMS Group Health and Accident Plan.*—As of September 1, 1961, the report for the past twelve months was as follows:

Currently, 2,027 members are enrolled in the plan. An intensive enrollment campaign is just getting under way. With the support of the Society it is hoped this total can be considerably increased in the coming months.

During the past year 516 payments were made to 209 members. Thus, an average of one in ten enrolled members had occasion to call upon the insurance and to receive benefits during the year. These payments come out of an average of forty-three per month, or approximately two each working day.

Beginning November 15, 1959, claim payments because of disability have been increased by 10 per cent due to favorable experience. This plan will be continued throughout the policy year beginning November 15, 1961.

During the year no claims were made for accidental death or dismemberment.

One Councilor Change

H. J. Meier, M.D., Councilor of the Third District and Chairman of The Council for the past two years, has resigned effective Tuesday evening, September 26, due to pressure of an increasing surgical practice and other personal obligations. The Council has placed on its minutes a vote of high thanks to Chairman Meier for his long years of brilliant service in important Michigan State Medical Society posts, culminating in Chairmanship of The Council, and sincerely regrets the necessity for Dr. Meier's decision, which represents a great loss to the Society.

McNerney Report

An activity vital to medicine and its immediate future is the Michigan State Medical Society evaluation of the University of Michigan Study of Hospital and Medical Economics (the McNerney report, recently off the press).

It is gratifying to report that through the courtesy of Judge George E. Bowles, Chairman of the Governor's Commission which will study the McNerney report for the next nine months, the Michigan State Medical Society was invited to nominate a doctor of medicine for membership on this Commission. Dr. H. F. Falls was selected by The Council and has been appointed to the Commission, with President-elect Otto K. Engelke, M.D., as alternate.

Tomorrow the Study Committee authorized by the House of Delegates last year will report in detail regard-

ing plans and recommendations for a socioeconomic research program and evaluation of the University of Michigan study.

Relative Value Study

The work of the Committee on Relative Value Study has been so monumental and its report so important that The Council feels it should be presented to the House of Delegates as a separate item of business. Again we request the House to hear the findings of this Committee direct from J. W. Rice, M.D., Chairman of the Medical Care Insurance Committee, and from Luther R. Leader, M.D., and A. J. Day, M.D., Chairman and Vice Chairman respectively of the Relative Value Study Committee.

J. W. Rice, M.D. [Jackson]: It has been the custom of the Medical Care Study Committee for the past three years to have supplemental reports. It is with a great deal of regret, which I am sure you share with me, that the Medical Care Study Committee could not have a supplemental report this year; however, the Relative Value Study Committee will give the report.

I would like to compliment this Committee because they spent over a month of intensive work on this subject. I would also like to commend the representatives of the various specialty groups who met with them and gave their time to make this the report it is. The Committee itself was devoted and were all present on every week-end. They spent the entire week end and other meetings working on this subject. They did homework on it. They spent a tremendous amount of time preparing what we have before us today.

The Chairman of this Committee was Luther Leader, and I don't think I need tell you that Luther displayed extraordinary qualities of leadership and diplomacy to get this thing in one volume and to have it agreed to by all the members of the specialty groups that were represented in this State Society.

It gives me a great deal of pleasure to commend this Committee and its Chairman, Dr. Luther Leader, for the job they have done and prepared for you today. At this time, I would like to present the Chairman of that Committee, Dr. Luther Leader.

Luther Leader, M.D. [Wayne]:

Before I give this report I want to state that this report has been briefed somewhat, although the salient points will definitely be brought out; but nothing has been omitted. I am sure the report is what each of you delegates has already received. If there are any questions after this report is given (and it will be given in two parts, one part by me and one by Dr. Day because of the necessity of using lantern slides), we shall be glad to answer them.

Also, I want to state something about the historical part of this report. As you know, it was originated by California. We met with California representatives in Detroit, and they formulated our plans for our own Relative Value Study Committee.

X—2. COMMITTEE ON RELATIVE VALUE STUDY

I. Historical

In 1952, the Commission on Medical Services of the California Medical Association appointed a subcommittee to develop a set of principles to govern the development of fee schedules. After nearly three years of work the Committee on Fees completed its assignment and reported its findings to The Council of the California Medical Association. In February of 1956 the CMA Council adopted the now well-known California Relative Value Study.

It was pointed out then that this was not an actual fee schedule, but represented an improved listing and coding of medical procedures along with a unit valuation comparing one procedure with another. Using the relative value study, various fee schedules could be obtained by multiplying a monetary unit valuation by the various relative values listed.

In 1957, the Michigan House of Delegates approved a report of the Committee to Study Comprehensive Prepaid Medical Care Insurance Plans and its eleven recommendations as amended by the reference committee. The report included authorization to review and modify the California Relative Value Scale for use by the Michigan Medical Service in its M-75 and other policies until Michigan could develop its own relative value scale.

In September 1958, the Michigan State Medical Society Council gave the Medical Care Insurance Committee the specific task of developing a Michigan Relative Value Scale. In November of 1958 the Relative Value Study Subcommittee was appointed, and an orientation meeting was held on December 6, 1958, with the Medical Care Insurance Committee and representatives of various specialty groups.

Attending the December 1958 meeting were officials of the California Medical Association, who gave this Committee the benefit of their experience, and discussed the problems in the development of the California Relative Value Scale.

A plan was then evolved by the Relative Value Study Committee to develop a questionnaire to be mailed to every member of the Michigan State Medical Society, to be followed by an analysis of the questionnaire and by consultations with all of the various specialty medical groups in the State of Michigan. A budget for this lengthy work was drawn up, submitted to The Council, and approved by The Council of the Michigan State Medical Society.

II. Survey

A—Development

The Relative Value Study Committee met on several occasions to develop a questionnaire to be mailed to each member of the Michigan State Medical Society, and agreed that the previously used California questionnaire was too lengthy. At this time also a revised questionnaire was obtained from the American Medical Association, and these two questionnaires were combined in a shorter form.

Concomitant with the development of the questionnaire, various approaches were made to educational institutions and to independent organizations for help in the tabulating and analysis of the questionnaire and for a statistical consultant to certify the results.

One of the problems which concerned the Committee was the fact that most of the university organizations willing to take on this project would have to use the results in their teaching program, and therefore the results would not be the restricted and private information of the Michigan State Medical Society.

Finally, the Market Opinion Research Company of Detroit, as managed by Mr. Richard W. Oudersluys, was selected. Professor John M. Mattila, Ph.D., of the Wayne State University Economics Department, was chosen as the consulting statistician for the survey.

B— Sampling

The Relative Value Study Committee was advised by the consulting statistician that if less than 75 per cent of the total membership of the Michigan State Medical Society returned their questionnaires, a statistically valid result would not be obtained, and that a probability sampling of the membership would be much more accurate. It was predicted that we would not be able to obtain a 75 per cent return of the questionnaire.

On this basis, the Relative Value Study Committee decided that a questionnaire should be sent to every member of the Society but, in case the return was less than 75 per cent, we should be prepared to have the sampling information to avoid the failure of such an expensive project.

The Market Opinion Research Company and Dr. Mattila were provided with the National Directory of Medical

Specialists and with the Directory of the Michigan State Medical Society, and the plan was evolved for the coding of each questionnaire of the scientifically-selected sample group. Thus, when all of the questionnaires would be returned certain questionnaires belonging to the sample could be set aside, and the coding of the sample would indicate which specialty or to which group the physician belonged. Thus, the Research Company could obtain information as to the completeness of its sample and would be able to verify its results.

A complete report from the Market Opinion Research Company and from Dr. Mattila is included with this report and explains these procedures in detail.

The questionnaires were mailed to each member of the Michigan State Medical Society in November of 1959, and a series of three follow-up letters was sent to the entire membership. It should be strongly emphasized that no member of the Relative Value Study Committee, nor anyone connected with the Michigan State Medical Society, had any means of identification of the sampled questionnaires. The questionnaires have remained in the custody of the Market Opinion Research Company and will be ordered destroyed on the acceptance of this report.

C—Results

1. *Reliability and Certification.*—Of the total number of questionnaires sent to every member of the Society, only 45.6 per cent were returned. It was very fortunate, therefore, that the Committee had planned on the sampling technique. Of the sample group there was a 60.1 per cent return. When the sample group had been selected, specialties with a large membership were sampled 25 per cent and this was increased according to the size of each group to 100 per cent for the smaller groups. The statistical reliability of the sample with its 60.1 per cent return has been certified by the consultant, Dr. Mattila.

In April 1960, the Relative Value Study Committee received the final report from the Market Opinion Research Company and from Dr. Mattila with a listing of the fees, both by specialty group, such as the specialist and the general practitioner, and also by geographical location.

2. *General Practitioner vs. Specialist.*—In listing the results of the fees reported, it was apparent to the Committee that there was much less differentiation of fees among the general practitioners than among the specialists. For example, most of the fees of general practitioners were listed at $50, $100, $150 and $200, grouping many procedures into one fee bracket. The listing of the fees reported by the specialists, however, showed much greater differentiation and discrimination as to the skill required.

It was apparent, therefore, that relative values between these various procedures and the fees listed were much easier to obtain using the specialists' fees. In some cases the general practitioners' fees were the same as those of the specialists, and in others were somewhat lower. The fees were lower chiefly for those procedures done less often by the general men than by specialists.

3. *Geographical.*—When the plan of sampling was set up, arrangements were made to obtain information as to the fee level in various geographical areas of the State. The State was divided into four regions, namely, (1) the upper peninsula, (2) the counties in the lower peninsula having the larger cities, (3) the other counties of the lower peninsula, and (4) the Metropolitan Detroit area.

The results of this survey showed a distinct difference in the fee level for surgical procedures and also for medical procedures. It is believed that the results from the medical procedures are less valid because of the fewer procedures listed in the questionnaire and also the smaller number of answers, although it shows the same trend as in the surgical procedures.

The Detroit fees were highest, and the other areas were proportionately lower, as listed in the table form below:

Area 4	Metropolitan Detroit	100 per cent
Area 2	The larger cities of the lower peninsula	91 per cent
Area 3	The remainder of the lower peninsula	83 per cent
Area 1	The upper peninsula	66.3 per cent

Because this information was obtained before the consultations with the specialty groups were started, all discussion of fees in developing this survey was made on the basis of Detroit fees so as to eliminate a possible source of error.

Because of the difference in fees demonstrated by the geographical analysis in the survey, the Relative Value Study Committee believes that there are differences in fees on a geographical basis related to the size of the community, even though the relative values remain the same.

Thus, the findings of the survey should be interpreted as follows:

Area 1	Metropolitan Detroit	100 per cent
Area 2	Cities over 50,000 persons (Flint, Grand Rapids, Lansing, Saginaw, Kalamazoo, Ann Arbor, Bay City, Jackson)	91 per cent
Area 3	The remainder of the lower peninsula (smaller towns and rural)	83 per cent
Area 4	The upper peninsula	66.3 per cent

III. Specialty Hearings

On April 24, 1960 the Relative Value Study Committee began its conferences with the official representatives of the various specialty medical societies. Week-end Committee sessions were held on Saturdays and Sundays from ten in the morning until five in the afternoon, at intervals of two or three weeks, in order to complete this tedious portion of the study as quickly as possible.

The Committee in these hearings had the advantage of the statistics from the survey, and also developed its own sources of private information regarding fees. Each specialty group representative would present his recommendations for the listing of new procedures, the elimination of previously listed procedures, and his beliefs regarding the average fee being charged in the Detroit area.

In order to prevent misunderstandings, all discussions were in terms of dollars rather than in relative values during this phase of the study. The Committee was grateful for the cooperative attitude and the friendly relationships at almost all of these specialty medical consultations. There was almost no attempt to request or list "desirable fees" rather than the "existing fees." Although these consultations were tiring and very prolonged, they were carried on in a friendly spirit. Through these consultations the relative values could be obtained for the many procedures which could not possibly have been listed in the survey questionnaire. These hearings were completed on February 12, 1961.

The Relative Value Study Committee then converted all of the dollar figures for fees throughout the schedule into units of relative value, from one to 100, and a complete compilation of figures was then sent to each of the group representatives.

On February 25, 1961 the Committee held an open hearing with all of the group representatives in order to present and explain the work of the Committee and to hear and answer questions or complaints about any decisions which had been made. Again, the Committee was pleased to find general satisfaction with the relative values as listed. Naturally, there was some objection raised for various procedures, and on the following day the Committee considered the changes requested and came to its final conclusions as presented with this report.

I might add that we were in Kansas City last week, and the twenty-four representatives present all definitely wanted a complete copy of our study. Three groups have already picked it up.

IV. Relative Value Scale

A—Medicine

In approaching the development of a Michigan Relative Value Scale, the Relative Value Study Committee felt that the general field of medicine would present more problems than any other field. Although relative values had been placed on procedures in the other main branches of medicine, there was little indication of the relationships of medical procedures and medical treatment under relative value scale. Some other states had made some provisions for division of medical inpatient care into a major and a minor group with two different levels of payment.

The Committee spent considerable time in amalgamating the problems of the general practitioner. the internist, the pediatrician, the dermatologist and other specialties which do a considerable part of the medical treatment. A completely new type of listing of the outpatient medical procedures was accomplished, and this was followed by a relative value determination of inpatient medical care according to the skill and requirements needed in the treatment of various diseases.

This desire to assign relative values to the medical inpatient section was foreseen before the survey was developed, and accounts for the inclusion of differing medical problems in the Michigan questionnaire.

The Relative Value Study Committee is hopeful that this medical section, which is unique both in relative value scales and fee schedules previously used in this country, will be the basis for further development as time and experience will direct.

B—Surgery

The surgical section has been revised chiefly by the addition of new procedures and the elimination of out-of-date procedures and also by the careful balancing of relative values *between specialties*. It should also be clear that the relative values listed include the operation and the normal postoperative inpatient care.

The new California Relative Value Study (Third Edition, September 10, 1960) lists values which include varying periods of aftercare up to 365 days. Obviously this would include any postoperative office visits in certain categories.

The Committee feels that this method of fee determination would be unrealistic and would make it difficult for insurance carriers using this scale to provide anything less than total medical care. Because of this different status of the aftercare, the new California Relative Value Scale cannot be compared with the Michigan Relative Value Scale as presented.

C—X-Ray

Relatively minor changes were made in the schedule of relative values for diagnostic radiographical procedures.

The chief problem in this section was the development of a schedule of relative values for x-ray therapy. In Michigan, approximately 90 per cent of the therapy equipment is owned by hospitals and not by physicians. Furthermore, out of the fees charged for x-ray therapy, only a percentage is received by the physician for his care of the patient and management of the therapy equipment. Thus, there is some doubt in the minds of the Committee members as to whether this schedule properly belongs in a physician's schedule of benefits or whether it is the responsibility of both hospitals and physicians. The Committee did, however, decide to include a schedule of x-ray therapy procedures.

The Relative Value Study Committee has revised the schedule of relative values as presented by the Detroit Roentgen Ray and Radium Society, which is the State-wide organization representing the roentgenologists. In the scale which was presented, a greater relative value was requested for those physicians treating by the "multiple series technique" than the physician who treated by the "single series technique" for the same type of lesion.

The Committee believes that this principle is wrong, and that from the standpoint of the patient receiving medical care for any given condition only one valuation should be placed on this care, regardless of whether a physician chooses to treat one way or another. Thus, the Committee has included a scale of relative values for the treatment of various conditions, with no difference in value being allowed whether treated by the single series technique or by the multiple series technique.

For this single series technique or otherwise, there has been an actual increase in the values given in accordance with existing hospital fee scales. In this field of x-ray therapy the Relative Value Study Committee recognizes the fact that there is some difference of opinion within the roentgenologists themselves, and that perhaps some change in this schedule will have to be made at a later time if an improved listing can be devised.

D—Pathology

In the pathology section no particular problems were encountered. New procedures were added to the listing and some values were decreased, on the basis of improved skill in the handling of these procedures.

Now we will take up the relative value between the sections. As I said before, California nor any other state except Illinois, which has now consulted with us, has never compared relative value between the sections. They have done it in their own section.

With that I would like to have Dr. Day take up this subject, as he has the slides.

A. J. Day, M.D. [Wayne]: California has stated any number of times that there is no relativity difference between sections, obviously because it is very difficult to establish a relativity at one income level.

[*Dr. Day continued the formal report of the Relative Value Study Committee, using slides to illustrate the various points. The formal report continues:*]

V. Relativity Between Sections

In devising the relative value schedule, fees in terms of dollars were obtained in all the areas of practice of medicine and on the basis of the so-called *standard* or *average* fee. In converting the fees in terms of dollars into relative values, there is therefore a relativity throughout the schedule at the standard or regular fee level.

It is recognized that in the case of x-ray and pathology there are high fixed costs and high overhead, and that in the traditional practice of medicine the fees charged in these two areas have been usually on a fixed basis, with no variation for income level of the patient.

This is likewise true for a portion of the practice of the general medical man, the internist and the surgeon, in that office examinations, consultations and low-priced procedures are usually on a fixed fee basis, without variation for income level of the patient. On the other hand, the vast majority of higher priced surgical procedures, the inpatient care of medical diseases, and higher priced medical procedures have varying fees on the basis of the patient's income.

The Relative Value Study Committee believes that to reflect the actual practice of medicine and to maintain the relativity between the procedures performed by all physicians, we may divide the relative values listed in the schedule into two groups, namely, the X unit and the Y unit. The X unit would pertain to all of the values listed in the sections on x-ray and pathology, and those procedures listed in the medical and surgical sections totaling 7 units or less. The Y units would pertain to relative value units listed in the medical and surgical sections where the total is more than 7 units.

In the use of this relative value scale by any type of fee schedule, the X unit would remain constant and have the same monetary value for any income level. The Y unit would have a reduced monetary valuation for lower income levels and a higher valuation for upper income levels, but at the *average* or *standard* level would be exactly the same as the X unit.

This Committee is not in a position to make recommendations regarding the income level for application of the *standard* or *average* fee. The function of this Committee has been to develop a relative value scale, but the use of this concept of X and Y units is necessary to maintain and protect the relativity between the various sections.

Using the relative value scale in this manner, the proceeds of medical care would be divided equitably among all practitioners of medicine. The secondary advantage which would occur in the use of this X unit and Y unit plan would be the elimination of separate negotiations of monetary unit valuation by different sections with various insurance agencies.

L. R. Leader, M.D.: I would like to sum this up in two minutes.

VI. Summary

1. A survey has been conducted to determine the *average* or *standard* fees charged by physicians throughout the State of Michigan, and this survey has been certified as being statistically accurate.
2. There is some difference in the fees charged according to a geographical location in the State of Michigan.
3. Consultations were held with the official representatives of the general practice and specialty groups to ascertain average fees charged, and these fees were correlated between the various groups.
4. Th fees in terms of dollars were converted into relative value units to establish a relativity at the standard fee level throughout all sections of practice.
5. By establishing an X group of relative values and a Y group of relative values as described in the report, a means is offered to maintain relativity between sections of pracitce at varying income levels.

VII. Epilogue

The members of the Relative Value Study Committee accepted their assignment with a realization that this would be a large task. No one on the Committee, however, realized how enormous this task would be.

This Committee has met on thirty-four separate days for a total of 210 hours of deliberations, with many of the members traveling across the State to attend the meetings. In addition, the individual Committee members spent many other hours on "homework" which was necessary between regular Committee meetings.

This is mentioned only to indicate the careful analysis and study which was required in this project. In spite of the work involved, the Committee members remained at all times on friendly terms with each other, and all have shouldered the burden of the assigned task.

The Committee understands that The Council is on record as stating that the Relative Value Study report will be referred to the Michigan State Medical Society House of Delegates for its consideration. The Council may want to give a copy of this Relative Value Study report (complete with the proposed scale) to each member of the Michigan State Medical Society House of Delegates, and perhaps also to each member of the Michigan State Medical Society. Certainly this is an important matter for every Michigan doctor of medicine.

Respectfully submitted,
Luther R. Leader, M.D., *Chairman*
Fred C. Brace, M.D.
Hugh T. Caumartin, M.D.
A. Jackson Day, M.D.
Harold A. Furlong, M.D.
Ralph A. Johnson, M.D.
A. J. Neerken, M.D.

The Committee gratefully acknowledges the unfailing assistance of Mr. Herbert Auer of the Michigan State Medical Society headquarters staff.

The Speaker: Thank you, Dr. Leader and Dr. Day.

The report of the Relative Value Study Committee will be referred to the Reference Committee on Special Committees.

Committee on Vocational Rehabilitation

The Vocational Rehabilitation Committee held one meeting during the year 1961. The Committee requested that an issue of The Journal of the Michigan State Medical Society be dedicated to rehabilitation in the year 1962.

The Committee requested that the Office of Vocational Rehabilitation present a list of procedures for study by appropriate MSMS committees with regard to items not included in the Michigan Uniform Fee Schedule.

The Committee, after considerable study, requested that the Committee's name be changed from Vocational Rehabilitation to the Committee on Rehabilitation and, while it would continue its liaison with the Michigan Office of Vocational Rehabilitation, its area of coverage would include rehabilitation in other fields.

The Committee further requested that the present size of the Committee be augmented to include specialists in various fields of medicine concerned with rehabilitation, and that appointments to the Committee be made to provide good geographic coverage of Michigan medicine.

Your Commitee felt that there were four basic truths with regard to rehabilitation: (1) Many people with disabilities could be improved or their disability could be reduced if they had knowledge of what to do. (2) Present rehabilitation services in Michigan are not used now to their fullest extent. (3) More active referral of patients to these services seems to be indicated. (4) There are resources available in local communities which can be brought to bear on rehabilitation problems.

Permanent Conference Committee

The meetings so far this year have been well attended by representatives of all component organizations. A sub-committee was formed to study and give constructive advice on the utilization of practical nurses. This Committee's recommendations were studied and referred to our parent groups. It was also thought advisable to present these recommendations to the State Board of Nursing. Another subject discussed was nurse recruitment. The authority and responsibility of nursing in times of disaster was also discussed.

Liaison Committee with the State Bar of Michigan

One matter was referred to the Committee during the year. The group met with the State Bar Committee on Medico-legal Matters, and representatives of the Michigan Hospital Association, and discussed a Statement of Principles governing hospitals, lawyers and doctors with respect to hospital records and contacts between lawyers and patients. The Joint Committee decided to refer a draft of the Principles to each of the three organizations and to call another meeting to arrange the final draft. The Council on September 24 approved the draft presented.

Committee to Survey Utilization of Health Insurance

Your Committee held two meetings and formulated broad principles on how to bring into focus the utilization of health insurance in Michigan. The Committee plans additional meetings to work on specific measures which carry out the principles formulated, before presentation for approval.

Committee to Study Establishment of Loan Fund for New Physicians

Your Committee met on two occasions and investigated, first, the availability of funds which might be used as loans to help new physicians get started and secondly, the need for such a fund.

At the State Society level the Committee was unable to find funds which might be used for this purpose. The Michigan Foundation for Medical and Health Education feels that their funds are earmarked for students and not for graduates. Several county societies have funds which are at present invested, but those societies do not feel that it would be proper to use the money for this purpose.

Both medical schools have loan funds, but they are marked for student use only.

The following motion was passed:

"That this Committee study the possibility of establishing an MSMS Loan Fund for new physicians entering private practice, which would loan funds at a 2 per cent rate of interest for the first three years, to increase by 1 per cent each of the next two years unless partial repayment is made during the initial three-year period; and further, the stipulation be made that 50 per cent of the original loan must be repaid at the end of five years." Carried, with one member dissenting.

It remained as a part of the minutes after review by The Council. However, due to the financial burden occasioned by the new headquarters, no action by The Council to implement this motion has as yet taken place, and is questionable in the near future.

Committee on Insurance

There has been but one meeting since this Committee was established—April 12, 1961. At that date the role and scope of responsibility of this Committee was defined. It was established that this new Committee had been assigned the activities previously the responsibility of the following former committees:

(a) MSMS Liaison Committee with the Michigan Chapter of the Health Insurance Council.

(b) Committee on Retirement Trust Funds.

(c) Committee on Study of Insurance Problems of MSMS Members.

Matters of particular interest considered by this Committee were:

1. Consideration of one insurance plan for MSMS and Wayne County Medical Society. Investigation, including contact with the two insurance carriers, disclosed that many benefits accruing to the present insurance holders would be lost. The Committee, however, will continue to pursue this matter if there is sufficient demand for such a plan.

2. Modifications in the Mutual Benefit Life Insurance Company's MSMS group life insurance plan folder were reviewed and approved.

3. This Committee reaffirmed previous Committee action in that it concurred as follows:

(a) Professional liability insurance is an individual matter and responsibility.

(b) MSMS urges every member to take advantage of such insurance.

4. Retirement Investment Trust Program.

Michigan Association of the Professions is studying this matter, and it is anticipated that this Committee will study the deliberations of MAP and, if suitable, will recommend the program to the MSMS membership. Periodic meetings are planned.

Committee with State Executive Office

No formal meetings of this Committee were necessary this year. Your Chairman did, however, invite the Governor to attend the Dedication Ceremonies of the new MSMS headquarters. This the Governor was unable to do because of a conflicting engagement.

The Governor did meet with the full Council in July for an informal discussion of matters of mutual interest.

Education Liaison Committee

In the 1960-1961 Committee year this Committee was renamed and its scope enlarged. Formerly it was known as the Liaison Committee with Michigan Medical Schools. This year, however, its purpose was to act as a liaison group with all areas of education, including the State Board of Registration in Medicine.

Two meetings were held in 1961. On April 24 the Committee met with University of Michigan officials. Many areas of mutual interest were discussed and specific items referred by The Council were handled. The Committee and University of Michigan representatives felt that such meetings are extremely beneficial.

On June 22, the Committee met with representatives of Michigan State University. At this informational meeting MSU presented plans for its proposed Institute of Biology and Medicine. No Committee action was requested or taken on this interim report.

A meeting with the State Board of Registration has been requested and is planned for the 1961-1962 Committee year.

Healing Arts Study Committee—Relationship of Medicine to Osteopathy

The Council referred to this Committee the study of osteopathy as it relates to medicine, particularly in light of the AMA House of Delegates' action taken in June, 1961. On September 24 The Council reviewed the study made by this Committee and noted with interest the action taken by the AMA House of Delegates in June, 1961.

A recommendation on this subject follows:

The Council recommends that a joint committee of the House of Delegates and The Council be appointed to give study to the relationship of medicine to osteopathy as it applies in Michigan in light of the recent AMA action.

Statement of Policy re Allied Health Professions and Services in Hospitals

On September 24, The Council approved the following resolution:

Whereas, MSMS has from time to time received requests from various members for a statement of policy as to the relation of medicine with allied health professions and services, such as chiropody, etc., and

Whereas, the need for and beneficial use in hospitals of the talents of members of the allied health professions and services is well accepted, and

Whereas, the extent of independent privileges to be granted in hospitals to members of allied health professions and services is a matter of great legal and professional concern, and

Whereas, experience and public safety considerations require that the medical staff of a hospital be organized and responsible to the governing board of the hospital and the public for the competence and quality of professional and medical care, and

Whereas, granting of privileges to a qualified podiatrist will not cause a hospital to be penalized by the Joint Commission on Accreditation, and

Whereas, one of the Joint Commission on Accreditation's requirements is that a hospital be accepted for listing by the American Hospital Association, and

Whereas, the American Hospital Association states that only doctors of medicine or doctors of osteopathy shall practice in hospitals listed by the American Hospital Association, and patients admitted for services other than by doctors so mentioned must have history and physical examination done by a physician on the staff of the hospital, and a physician on the staff of the hospital shall be responsible for the patient's medical care throughout his stay, and

Whereas, the extent of professional medical services available and rendered varies at the local level with the size, type and staff organizations of the hospitals and community served, and

Whereas, the best interests of the public, hospitals, the medical profession and allied health professions and

services will be better promoted by the formulation and adoption of appropriate guiding principles; therefore, be it

RESOLVED: That the following statements of policy and principles be endorsed:

1. Hospital staff privileges should be limited to competent and qualified physicians and surgeons, and all patients will be admitted to hospitals by them only.

2. The services of certain allied health professions and services which are necessary and proper to hospital function and treatments therein may be available within the limits of their technical skills, and the scope of their lawful practice, under the direction and supervision of a physician or surgeon member of the medical staff of the hospital who is appropriately qualified in that field.

3. Such services in hospitals should be under the direction of the appropriate department or section charged with the responsibility for the maintenance of that type of service; and be it further

RESOLVED: That the following list of scientific, professional and technical personnel in the health fields be a representative list of allied health professions and services that may be added to or deleted therefrom at the discretion of the governing body of MSMS:

1—Anatomists
2—Audiologists
3—Basal metabolic technicians
4—Bioanalysts
5—Biochemists
6—Biophysicists
7—Biostatisticians
8—Chiropodists
9—Clinical chemists
10—Corrective therapists
11—Cytotechnologists
12—Dieticians
13—Electrocardiographic technicians
14—Electroencephalographic technicians
15—Electrologists
16—Epidemiologists
17—Histologic technicians
18—Hospital administrators
19—Industrial hygienists
20—Inhalation therapy technicians
(Oxygen therapy technicians)
21—Lay psychonanalysts
22—Masseurs and mechano-therapists
23—Medical illustrators
24—Medical record librarians
Medical record technicians
25—Medical social workers
26—Medical technologists
27—Microbiologists
Bacteriologists
Immuno-serologists
Mycologists
Parasitologists
Virologists
28—Midwives
29—Music therapists
30—Nutritionists
31—Occupational therapists
32—Opticians
33—Optometrists
34—Orthoptic technicians
35—Pharmacists
36—Pharmacologists
37—Physical therapists
38—Physiologists
39—Prosthetists
40—Psychiatric social workers
41—Psychologists
Clinical psychologists
Counseling and guidance psychologists
42—Public health educators
43—Radiation therapy technicians
44—Recreational therapists
45—Rehabilitation therapists
46—Sanitary engineers
47—Sanitary inspectors
48—Speech therapists (speech pathologists)
49—Vocational counselors
50—X-ray technicians

and be it further

RESOLVED: That MSMS transmit this statement of policy to the constituent county societies.

Public Relations—State Fair Exhibit

For the second time in three years the Michigan State Medical Society exhibit of 1961 was awarded first place in the Large Exhibit category at the Michigan State Fair, Detroit. Presentation of the award was made to Past President Milton E. Darling, M.D., by John Cameron Swayze in behalf of the Fair Board on Sunday, September 10.

The theme of this year's exhibit was "Careers in Medicine." The large, three-sided display emphasized the needs for and advantages of careers as doctors of medicine or medical associates. Manning the exhibit were 120 volunteers consisting of twenty doctors of medicine, thirty-five medical students and sixty-five registered and practical nurses and medical technologists.

As demonstrations, 8,760 polio shots, 3,231 blood pressure readings and 2,705 diabetes detection kits (in addition to thousands of pieces of literature) were given to the visitors.

Great credit is due the State Fair Committee, headed by Glenn Millard, M.D., of Detroit, and the work of Mr. E. Ray Scott, MSMS Public Relations Field Representative, and his assistant, Mrs. Barbara Vellniure.

Follow-Through by The Council on Instructions of House of Delegates' Special Session of April 16, 1961

1. Four regional conferences were held, one in Traverse City on May 2; Lansing, June 11; Detroit, June 15, and Menominee, June 16. Attendance at three of these meetings was very poor.

2. Speakers' Bureau: The one-day training session, authorized by the House of Delegates, is scheduled to be held in Lansing, October 19.

Meanwhile, a number of talks were presented throughout the State by officers and staff members. The field staff assisted county medical societies in establishing their own speakers' bureaus, in planning public meetings, in preparing letters to newspaper editors, etc.

3. Contacts with Delegates: Five legislative reports were sent to all delegates. A special letter signed by Drs. Johnson, Engelke and Drolett was mailed August 10. The Secretary's Letter of August 24 went to delegates and county society officers. The Secretary's Letter of September 5 was sent to delegates and all members. The booklet, "Health Care, U.S.A.," as revised, and including a card with detailed information on the Kerr-Mills and the King-Anderson bills, was sent to delegates and all members September 15 with the poster for doctors' offices.

4. Report on the April 16 session of the House of Delegates was digested and sent to all delegates. This was also published in The Journal (May Number page 644), and this went to all members.

5. Press releases were sent to all county medical society publications and to newspapers throughout the State.

6. Contacts with Congressmen. The annual trip of MSMS officers to Washington, D. C., was made Mar 1-2-3. Following the recommendations of the House of Delegates that county medical societies send delegations to Washington, D. C., the Ingham County Medica

Society sent its own delegation to contact congressmen on July 19-20.

In addition, President-elect Otto K. Engelke, M.D., testified against H.R. 4222 in Washington on July 26-28 as MSMS representative before the House Ways and Means Committee of the U. S. House of Representatives.

7. The Michigan Health Council's State Conference in Flint, featured Edward R. Annis, M.D., of Miami, Florida, on May 24, speaking on Aging. During this conference television shows were telecast re H.R. 4222 and the problems of the aging.

As directed by the House of Delegates, this is a continuing program and more is to be and must be done by the State Society and its component societies in the balance of 1961 and especially in 1962. (The present budgetary allotment of $10,000 was specifically authorized to cover activities up to November 30, 1961.) On good authority we understand that no action will be taken on King-Anderson type legislation this year, but its adherents will push full power for its passage in 1962, an election year.

Matters Referred for Action by the 1960 House of Delegates

Single Medical Practice Act (Resolution No. 7) of 1960 House of Delegates:

This subject was referred to the Legal Affairs Committee, which requested its Subcommittee on Single Medical Practice Act, headed by J. S. Rozan, M.D., of Lansing, to give detailed study to the problem. Several meetings were held, one with C. John Tupper, M.D. (representing the University of Michigan Medical Dean William N. Hubbard, Jr., M.D.) and with Legal Counsel Lester P. Dodd to try and develop ways and means to gain the enactment by the Legislature of a single medical practice act and repeal of the present Basic Science Act.

Substantial progress toward implementing the 1960 MSMS House of Delegates resolution cannot be made without the cooperation of osteopaths in Michigan. Presently, the matter is a stalemate. However, the Rozan Committee will continue its efforts in the hope that eventually the desire of the MSMS House of Delegates may be accomplished.

Recommendations

We respectfully invite your attention to the nine recommendations in the original Annual Report of The Council, as indicated in your Handbook. They read as follows:

1. That The Council be authorized to arrange Councilor Conferences, prior to the Annual Session, to continue communication and share information with delegates, alternate delegates and component society officers, as during the past four years.

2. That the House of Delegates approve the holding of an annual General Meeting of the State Society as part of the last meeting of the House of Delegates.

3. That the House of Delegates place on its record a high vote of commendation to the personnel of the Relative Value Scale Study Committee for three years' arduous labor in producing this Scale in concert with all sections and specialty groups of medicine in this State concerned with this important socio-economic matter.

4. That component societies stimulate congratulatory communications to magazine editors who present to their readers true facts on what medicine is attempting to do for the benefit of the peoples' health; and conversely, that they encourage letters of protest against unfavorable or slanted and untrue articles about medicine that are published mainly to engender nation-wide controversy to increase sales for that particular issue of the magazine and not primarily for the public's good.

5. That the House of Delegates give serious consideration to the pressing need for the retaining by the Michigan State Medical Society of either a staff economist and/or the services of special consultant economists to evaluate socio-economic studies affecting medical practice, and that it instruct The Council in the procedure to be inaugurated including the financing of this new department activity.

6. That the House of Delegates encourage component societies and individual members to "accentuate the positive" in reminding the public that medicine in the United States is the BEST in the world, and that any attempts to dilute its quality, through socialization, will mean less service to and poorer care for the people; and that the Kerr-Mills medical care for the aged program is working and working well for the people who need this program.

Further, that the House of Delegates request county societies to continue and to intensify their action program against political medicine for the aged; and that every MSMS member be urged to know and recognize the intense seriousness of the present threat to private medical practice and best medical care, and that they personally inform patients and other friends of this overt campaign for general socialism.

7. That component societies continue their work to revise their fee schedules for medical care of indigents so they are in line with the Uniform Fee Schedule for Governmental Welfare Agencies.

8. That The Council be authorized to send MSMS representatives to Washington, D. C., in 1962, on the occasion of the annual Michigan Day, as recommended for many years by the House of Delegates.

9. That the House of Delegates encourage component societies, to discuss at least every other year, the subject of malpractice as part of a necessary campaign of prevention. Component societies will find their Councilor or the Chairman of the MSMS Committee on Malpractice qualified to speak on this subject.

10. That a joint committee of the House of Delegates and The Council be appointed to give study to the relationship of medicine to osteopathy as it applies in Michigan, in light of the recent AMA action.

This concludes the supplemental report. This is respectfully submitted on behalf of The Council of the Michigan State Medical Society.

THE SPEAKER: Thank you, Dr. Meier. The supplemental report of The Council will be referred to the Reference Committee on Reports of The Council.

MONDAY EVENING SESSION

September 25, 1961

The third session of the House of Delegates convened at 8 p.m., J. J. Lightbody, M.D., Speaker of the House of Delegates, presiding.

XVI. REPORTS OF REFERENCE COMMITTEES

XVI—1. REFERENCE COMMITTEE ON OFFICERS' REPORTS

E. H. FENTON, M.D. [Wayne]:

XVI—1a. SPEAKER'S REMARKS

The Reference Committee wishes to commend the Speaker on his brevity, in setting the stage for the 96th Annual Session, and in introducing new members to the House.

XVI—1b. PRESIDENT'S REMARKS

The Reference Committee commends Dr. Kenneth Johnson for his remarks in regard to a closer contact

between the State Society officers and local component societies, and in pointing out that requests for such contact should come from the local unit. The importance of the knowledge gained by a trip to Washington and the recommendation that component societies also send representatives, was approved. The concrete evidence of our Society's activities in the form of our new building was noted. The importance of personal contact with those in responsible positions was suggested as a means of eliminating misunderstandings and embarrassing situations. The importance of positive action was stressed.

Tribute was paid to the many people who contribute greatly to the activities of the Michigan State Medical Society. It is recognized that the sacrifices of the Presidency are great, as well as the Chairman of The Council and others.

The Reference Committee, however, does not approve of compensation for loss of time and income, as it was felt that such action would change the status of the Presidency and Chairman of The Council to paid employes. The honor and prestige of the office should be considered proper compensation, in spite of the tremendous sacrifice such an office requires.

XVI—1c. PRESIDENT-ELECT'S REMARKS

The very positive attitude taken by Dr. Engelke in fighting King-Anderson type legislation and in supporting the Kerr-Mills type of medical aid to the aged was heartening, and the necessity of getting the story to the public with all possible speed was emphasized.

The importance of ourselves as leaders in alerting our membership to greater personal effort, and in upgrading the public's image of the physician and of medical societies, was stressed. The interest of the public in what we do at this session of the House of Delegates in implementing the Presidents Program was brought out.

XVI—1d. DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

This report is published in your Handbook and is too voluminous to deal with in detail. Under the report on surgical assistants' fee, it states:

"It is ethically permissable for a surgeon to employ other physicians to assist him in the performance of a surgical procedure, and to pay a reasonable amount for such assistance."

It was pointed out to your Reference Committee that without clarification this report might encourage fee splitting. In order to assure that the patient would know who gets what, it would be necessary for the operating surgeon to make such payments by a check made out to both the assistant physician and the patient.

In general, the activities of the House of Delegates unquestionably are in agreement with the wishes of the majority. However, the report of the action taken in regard to social security for physicians was dismissed in a cursory manner, with the simple sentence, "The opposition to compulsory inclusion of physicians under the social security system was reaffirmed."

Since two State-wide polls of members of the Michigan State Medical Society have shown that they favor inclusion of physicians under the social security system, it would seen appropriate to have a more detailed report. Also, what effort was made by our delegates to implement the desires of the membership? The Reference Committee feels that information as to how our own delegates voted on this issue should be publicized, and sincere efforts should be made to obtain a nation-wide poll by the American Medical Association on the desires of the membership.

XVI—1e. WOMAN'S AUXILIARY

Your Reference Committee accepts with gratitude the report of the Woman's Auxiliary. Their valuable help in the Campaign for Freedom program, their work with youth in the form of Health Career Clubs, and their cooperation with Mrs. Mackersie in "Operation Coffee Cup," having to do with the distribution and playing of an excellent recording by Ronald Reagan in opposition to socialized medicine, are especially commendable. Also commendable is their fund-raising activity for the American Medical Education Foundation.

Their many activities are too numerous to mention, but all point toward service to the public through education and better understanding. A membership of 3,275 from forty-eight different counties represents about one-half of the wives of our members. Physicians are urged to encourage membership by their wives.

XVI—1f. MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

Your Reference Committee on Officers' Reports wishes to commend the Medical Assistants Society on its activities, particularly with regard to their Educational Seminar concurrently with the Michigan Clinical Institute, and their interest in the inservice training program developed through the cooperation of the University of Michigan. Physicians are encouraged to stimulate their office assistants to become members of this worth-while organization.

Mr. Speaker, I move the acceptance of this report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

THE SPEAKER: Thank you very much, Dr. Fenton. We thank you and your Reference Committee.

XVI—2. REPORT OF REFERENCE COMMITTEE ON REPORTS OF THE COUNCIL

XVI—2a. ANNUAL REPORT OF THE COUNCIL

C. I. OWEN, M.D. [Wayne]:

Membership.—Your Reference Committee notes with satisfaction that the present membership of 6,755 is the highest attained by our Society, and there are over three months to go in the current year.

Scientific Side.—The scientific program of our Society, which is its No. 1 project for its members, continues to be outstanding in its results. This is exemplified in the MSMS Annual Session which is held in September and the Clinical Institute which is held in March. Other important activities are the extramural postgraduate courses sponsored by our Society in conjunction with the two great medical schools in this State; THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY; the Presidents Program approved last year, and the scientific program of the fifty-five component county societies.

The Journal.—Your Reference Committee notes with interest the information given concerning THE JOURNAL. It would seem that it is somewhat burdensome to charge THE JOURNAL with the cost of the Roster of Committee Personnel and the Proceedings of the House of Delegates and the Annual Directory.

THE JOURNAL is to be complimented on the good flow of scientific papers and the excellency of news items. Although present advertising income is down, it is recommended that there be no disturbance in the flow and publication of scientific articles. Perhaps some economy can be effected by alteration in spacing, and perhaps some of the extraneous cost mentioned above can be allocated elsewhere.

It is the recommendation of the Reference Committee that the Annual Directory of Membership be continued on an annual basis, and that it not be changed to a biennial basis as was suggested by The Council.

Mr. Speaker, I move adoption of this part of the report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

Organization

I will read the report of The Council because this could be important:

1. *Councilor Conferences.*—"Communication between The Council and members of the House of Delegates was continued mainly through Councilor Conferences and through the mailing of minutes of all Council meetings to those delegates who requested them."

The Reference Committee recommends that either the minutes of The Council, which are sent to delegates on request, be either made more communicative and more informative or that they be discontinued.

I believe that does not require any action.

2. *Awards Dinner.*—It is noted that the Awards Dinner was given apart from the Annual Session and Clinical Institute of the Society, and that there continues to be a large number of our members eligible.

A general meeting at the Annual Session, Recommendation No. 2, was approved by this Reference Committee.

I don't believe that needs further elucidation because we have the resolution: "That the House of Delegates approve the holding of an annual General Meeting of the State Society as part of the last meeting of the House of Delegates."

That was done last year, and the Reference Committee approved it.

3. *Relative Value.*—Recommendation No. 3 is approved. You will note that the actual study of the relative value report belongs to another reference committee.

Government Agencies

1. *McNerney Report.*—Everyone has heard about and read excerpts from the McNerney Report, but many of our members have been wondering where they may obtain the complete report. This should be publicized for our members.

2. *Economist for the State Society.*—Recommendation No. 5 is approved by your Reference Committee, and it hopes that The Council will institute this program in the near future.

3. *Health Care for the Aged.*—Your Reference Committee notes The Council report on this matter, and compliments the officers for their work. Recommendation No. 6 is approved, and it is recommended that this be given wide publicity to the county societies and the membership-at-large.

Mr. Speaker, I move the adoption of the report of the Reference Committee up to this point.

[*The motion was duly seconded.*]

E. C. Baumgarten, M.D. [Wayne]: Does this present vote include the recommendation about the mailing of the minutes to delegates?

C. I. Owen, M.D.: That was the suggestion. They are being mailed upon request.

E. C. Baumgarten, M.D.: I thought your recommendation was that they be made more informative or else be discontinued.

C. I. Owen, M.D.: That's right.

E. C. Baumgarten, M.D.: I think it should be "more informative," period. That would be my recommendation.

C. I. Owen, M.D.: The Reference Committee will accept that.

E. C. Baumgarten, M.D.: Mr. Speaker, I move that the recommendation be that the minutes mailed to the delegates be made more informative than they have been in the past, and not be discontinued.

J. G. Slevin, M.D. [Wayne]: I second that.

The Speaker: This is an amendment to the motion in which you are removing the words "or that they be discontinued." The amendment is seconded. Is there any discussion?

[*The amendment was put to a vote and was carried unanimously.*]

[*The motion, as amended, was then put to a vote and was carried unanimously.*]

C. I. Owen, M.D.: We thank you, Dr. Baumgarten, for your amendment.

4. *Proposed Institute of Biology in Medicine.*—The Reference Committee recommends, after noting the proposed Institute at Michigan State University, that before the taxpayers of the State of Michigan are burdened with the high cost of establishing a wholly new school, the State Legislature should fulfill its commitments to the present two schools of medicine and expand their existing facilities to meet the alleged immediate need for graduating more doctors of medicine.

Mr. Speaker, I move the adoption of this part of the report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

C. I. Owen, M.D.:

Voluntary Agencies

1. *Michigan Medical Service.*—The Reference Committee endorses the opinion of The Council given in paragraph 1, and also asks the question, "Has anything better been created?"

2. *Student American Medical Association.*—Your Reference Committee read with interest the work of the State Society and its officers with the Student American Medical Association, and congratulates all concerned for their excellent work.

Committees.—Your Reference Committee noted the large number of committee meetings which were held during the past year. Of special importance was the Committee on Recruitment of Medical Careers. This Committee should be congratulated for its excellent work and its grass-roots contacts.

American Medical Education Foundation.—Your Reference Committee has knowledge of the relatively poor standing of our State Society in this worthy national program. Your Reference Committee recommends that The Council approve a State-wide mailing some time in October or November, soliciting contributions from the membership. This will be done in cooperation with the field officer from the American Medical Association assigned to this job.

Mr. Speaker, I move the adoption of this part of the report.

[*The motion was duly seconded.*]

J. D. Miller, M.D. [Kent]: I wonder if there is any stipulation as to what they might do in Michigan toward helping us with this third medical school.

C. I. Owen, M.D.: The AMEF has nothing whatever to do with a third medical school.

J. D. Miller, M.D.: Is there any stipulation?

C. I. Owen, M.D.: There is no stipulation under AMEF concerning a third medical school, none whatever.

[*The motion was put to a vote and was carried unanimously.*]

C. I. Owen, M.D.: Many other committees have been at work and are to be congratulated on their activities.

Matters Referred by the 1960 House of Delegates

Your Reference Committee compliments The Council for its expeditious handling of the matters referred by the 1960 House of Delegates. Most of the issues have been resolved or disposed of in a satisfactory manner.

1. Recommendation No. 7 on the subject of Uniform Fee Schedule for Welfare Agencies is approved. It states: "That component societies continue their work to revise their fee schedules for medical care of indigents so they are in line with the Uniform Fee Schedule for Governmental Welfare Agencies."

We approve that recommendation, and I so move.

The Speaker: The recommendation is "That component societies continue their work to revise their fee schedules for medical care of indigents so they are in

line with the Uniform Fee Schedule for Governmental Welfare Agencies." Is there any discussion?

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

Recommendations

C. I. Owen, M.D.: The Council made nine recommendations, seven of which have been previously mentioned. Your Reference Committee recommends both recommendations No. 8 and No. 9.

Mr. Speaker, I so move.

The Speaker: **Recommendation No. 8** states: "That The Council be authorized to send MSMS representatives to Washington, D. C., in 1962 on the occasion of the annual Michigan Day, as recommended for many years by the House of Delegates."

Recommendation No. 9 states: "That the House of Delegates encourage component societies to discuss, at least every other year, the subject of malpractice as part of a necessary campaign of prevention. Component societies will find their Councilor or the Chairman of the MSMS Committee on Malpractice qualified to speak on this subject."

The motion is to approve these two recommendations of The Council. Is there discussion?

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—2b. SUPPLEMENTAL REPORT OF THE COUNCIL

Finance.—Your Reference Committee went over in detail the financial situation given by Dr. McGillicuddy and the Chairman of The Council, Dr. Meier. It is noted with interest that somewhat over $15,000 was spent for maintenance of the new building up to September 1, 1961, for a six months' occupancy. It is noted also that, rather than having a mortgage on the building, the Society borrows money on its good faith and thus saves substantially in interest costs. The credit for this master move must be given to our Treasurer, Dr. William A. Hyland.

Additional Annual Reports of Committees.—The Committee on Vocational Rehabilitation: It is noted that the Vocational Rehabilitation Committee will in the future be known as the Committee on Rehabilitation. This your Reference Committee approves. Your Reference Committee would like to emphasize the four basic truths in regard to rehabilitation:

1. Many people with disabilities could be improved or their disability could be reduced if they had knowledge of what to do.
2. Present rehabilitation services in Michigan are not used now to their fullest extent.
3. More active referral of patients to these services seems to be indicated.
4. There are resources available in local communities which can be brought to bear on rehabilitation problems.

Mr. Speaker, I move adoption of this part of our Reference Committee report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

Liaison Committee with the State Bar.—It is noted that the rough draft of the principles involving the State Bar, the Michigan Hospital Association and the medical profession has been made and approved by The Council. This Committee hopes for a satisfactory outcome to this problem.

Committee to Study Establishment of Loan Fund for New Physicians.—Your Reference Committee recommends that a critical survey be made of the needs of this project before action is taken.

I would like to read the paragraph which your Reference Committee recommends be deleted from the report:

"General discussion took place regarding the need for such a fund, and one opinion expressed the view that much of the need originated in the mind of the young man and was soon dissipated by the success of his first month in his chosen locality."

We didn't think that sounded very good when made available to the public, so we recommend deletion of this paragraph from the printed report.

Mr. Speaker, I so move.

[*The motion was duly seconded.*]

[*The motion was put to a vote and was carried unanimously.*]

Osteopathy.—Your Council had a recommendation on the relationship of medicine to osteopathy. This Reference Committee has been in touch with the Committee on Resolutions, Dr. Blodgett, Chairman, and suggests the adoption of the resolution which will be brought in by the Reference Committee on Resolutions.

Statement of Policy in Regard to Allied Health Professions and Services in Hospitals.—There is a long statement in regard to allied health professions and services in hospitals. It covers some two and a half pages and lists some fifty different ancillary services, scientific, professional and technical personnel. This is taken from the AMA.

On September 24 The Council approved a resolution on this subject, which is contained in the supplemental report of The Council. The Reference Committee recommends the adoption of this resolution.

Mr. Speaker, I move the approval of this portion of the report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

Public Relations

1. *State Fair Exhibit.*—The Reference Committee noted with interest the statement in regard to the exhibit, "Careers in Medicine," at the Michigan State Fair in 1961. The Reference Committee commends the 120 volunteers who worked in this exhibit and made it an outstanding success.

2. *Single Medical Practice Act.*—The question of a single medical practice act was referred to The Council by the 1960 House of Delegates. Your Reference Committee regards this as an important project and recommends that it receive top priority consideration.

Mr. Speaker, I move adoption of this portion of the report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

C. I. Owen, M.D.: Your Reference Committee learned with regret of the resignation of H. J. Meier, M.D., as Councilor and Chairman of The Council. He will be greatly missed. We extend to him our sincere thanks and congratulations on a job well done.

Mr. Speaker, I move the adoption of this entire report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3. REPORT OF REFERENCE COMMITTEE ON STANDING COMMITTEES

J. M. Wellman, M.D. [Ingham]: Following is a unanimous report of the matters that were referred to this Reference Committee for consideration.

XVI—3a. COMMITTEE ON BLOOD BANKS

This report was reviewed, and your Reference Committee recommends that it be accepted.

Mr. Speaker, I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3b. CANCER CONTROL COMMITTEE

J. M. Wellman, M.D.: The annual report of the Cancer Control Committee was considered. This Reference Committee wishes to inquire whether cases reported to the Michigan Cancer Registry are coded so as to not

reveal the personal identity of the patient. It is believed that this is in the best interests of patient-physician relationship.

Your Reference Committee recommends that if this is not at present the procedure employed by the Michigan Cancer Registry, they be advised to adopt it.

With this recommendation, your Reference Committee approves the report of the Cancer Control Committee.

Mr. Vice Speaker, I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3c. CHILD WELFARE COMMITTEE

Your Reference Committee praises this report and approves the recommendation contained in the resolution relative to youth fitness committees, and invites your attention to the fact that this resolution will be presented for your vote by the Reference Committee on Hygiene and Public Health.

Mr. Speaker, I move the adoption of this portion of the report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3d. COMMITTEE ON DIABETES

J. M. Wellman, M.D.: This report was reviewed, and it is recommended that it be accepted.

Mr. Vice Speaker, I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3e. ETHICS COMMITTEE

J. M. Wellman, M.D.: The annual report of the Ethics Committee was considered, and it is recommended that this report be received.

Mr. Vice Speaker, I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3f. GERIATRICS COMMITTEE

J. M. Wellman, M.D.: The annual report of the Geriatrics Committee is highly recommended for your perusal, and your Reference Committee recommends that it be approved.

Mr. Vice Speaker, I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3g. IODIZED SALT COMMITTEE

J. M. Wellman, M.D.: Your Reference Committee suggests that the Iodized Salt Committee might increase its scope of activity, and with this addition recommends that the report of the Committee be approved.

Mr. Vice Speaker, I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3h. LEGAL AFFAIRS COMMITTEE

J. M. Wellman, M.D.: In considering the annual report of the Legal Affairs Committee, your Reference Committee commends it for its excellent activities. We wish especially to compliment the Committee for furnishing the "legislative reports" to members of the Michigan State Medical Society.

We endorse the activities and study relative to single Medical Practice Act legislation. We recommend strongly that the 1961 Constitutional Convention be advised to establish a single licensing agency.

Mr. Vice Speaker, I move that this action of your Reference Committee be approved.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3i. MATERNAL HEALTH COMMITTEE

J. M. Wellman, M.D.: The annual report of the Maternal Health Committee was reviewed, and it is recommended that it be approved.

Mr. Vice Speaker, I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3j. MEDIATION COMMITTEE

J. M. Wellman, M.D.: It is recommended that the annual report of the Mediation Committee be approved.

Mr. Vice Speaker, I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3k. MENTAL HEALTH COMMITTEE

J. M. Wellman, M.D.: Your Reference Committee reviewed the recommendations of the Mental Health Committee which are enumerated in its report. It is recommended that a special committee on alcoholism and narcotics addiction be appointed by The Council on a trial basis. The remaining recommendations of this Committee were approved as printed.

Mr. Vice Speaker, I move that this portion of the report of this Reference Committee be approved.

[*The motion was duly seconded.*]

The Vice Speaker: Do you imply that a special committee be a subcommittee of the Mental Health Committee, or that it be a separate committee?

J. M. Wellman, M.D.: The Mental Health Committee informed your Reference Committee that they believe the problem of alcoholism and narcotic addiction does not fall within the strict realm of mental health. Your Reference Committee also did not wish to advocate the appointment of another standing committee. That is why we suggested that The Council appoint this special committee. Special committees have to be reappointed from year to year.

The Vice Speaker: Thank you.

L. J. Bailey, M.D.: Would it be a committee of The Council or a committee of the House?

J. M. Wellman, M.D.: That was considered, Dr. Bailey, and it was our recommendation that it be a committee of The Council.

The Vice Speaker: The motion states that it be a committee of The Council. Any further discussion?

Jack Rom, M.D.: Would this be one committee on alcoholism and narcotics addiction?

The Vice Speaker: It would be one committee.

J. G. Sleven, M.D.: As a member of this Reference Committee, I would like to say that the reason we suggested a special committee of The Council on a trial basis was so that we could find out whether it was important to continue such a committee.

In the past, in various county medical societies, we have had committees on alcoholism and they have fallen by the wayside. It would be much easier to try this out as a special committee of The Council without changing the Bylaws. If it becomes apparent, after they have functioned for a while, that this committee ought to be continued, it could be continued as a subcommittee of the Public Health Committee. For this reason the Reference Committee recommended that it be tried on a trial basis.

The Vice Speaker: Thank you very much for clarifying the issue. Any further discussion or comments?

[*The motion was put to a vote and was carried unanimously.*]

XVI—3l. OCCUPATIONAL MEDICINE COMMITTEE AND RESOLUTION NO. 44

J. M. Wellman, M.D.: It is noted that the Occupational Medicine Committee requests the name to be changed to Committee on Occupational Health. Your Reference Committee concurs in this request.

There was also referred for our consideration Resolution No. 44, introduced by Dr. Howes, of Wayne, which

duplicates this request. Your Reference Committee therefore recommends that Resolution No. 44 be approved.

Mr. Vice Speaker, I move that this portion of the Reference Committee report be approved.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3m. POSTGRADUATE MEDICAL EDUCATION COMMITTEE

J. M. Wellman, M.D.: Your Reference Committee notes with pride the quality and quantity of the work which has been done by this Committee and those members of the State Medical Society who have participated in this program, and commends them most highly.

Mr. Vice Speaker, I move that this portion of the report of your Reference Committee be approved.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3n. PUBLIC HEALTH COMMITTEE

J. M. Wellman, M.D.: The Public Health Committee and its many subcommittees are praised very highly for their work during the past year. The Reference Committee recommends that this report of the main Committee be approved.

Mr. Vice Speaker, I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3o. PUBLIC RELATIONS COMMITTEE

J. M. Wellman, M.D.: The activities of the Public Relations Committee continue to be a major program of our State Medical Society, and extreme thanks are due this Committee for the excellent manner in which its members have carried out their various Committee activities.

Mr. Vice Speaker, I move that this report of the Public Relations Committee be approved.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3p. RHEUMATIC FEVER CONTROL COMMITTEE

J. M. Wellman, M.D.: It is noted that the Rheumatic Fever Control Committee has requested the name to be changed to "Cardiac Disease Control Committee." This matter will be presented for your vote by the Reference Committee on Constitution and Bylaws. It is recommended that this Committee's report be approved.

Mr. Vice Speaker, I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3q. COMMITTEE ON RURAL MEDICAL SERVICE

J. M. Wellman, M.D.: Considering this report, your Reference Committee suggests that efforts be intensified in the placement of physicians in rural Michigan communities.

Mr. Vice Speaker, I move that the report of this Committee be approved.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3r. TUBERCULOSIS CONTROL COMMITTEE

J. M. Wellman, M.D.: Your Reference Committee approves the items in this report contained in paragraphs 1 through 5. Paragraph 6 concerns investigation into the advisability of reorganization of the Department of Health of the State of Michigan to establish a State Board of Health.

This item was referred back to the Tuberculosis Control Committee by The Council of MSMS on June 3, 1961, with a request that the Tuberculosis Control Committee "supply clarifying information" in this regard, and as of this date the Tuberculosis Control Committee has not given this matter further consideration.

In view of this, and since your Reference Committee does not have available the basic facts relative to this original recommendation, it is the recommendation of your Reference Committee that no action be taken on this specific matter.

Mr. Vice Speaker, I move the adoption of this portion of the report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—3s. VENEREAL DISEASE CONTROL COMMITTEE

J. M. Wellman, M.D.: Your Reference Committee notes that there has been a reported increase in syphilis of over 50 per cent in the past two years, and we strongly recommend that the five recommendations of the Venereal Disease Control Committee be implemented.

Mr. Vice Speaker, I move the adoption of this portion of the report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

J. M. Wellman, M.D.: Mr. Vice Speaker, I move the adoption of the report of the Reference Committee on Reports of Standing Committees as a whole.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—4. REPORT OF REFERENCE COMMITTEE ON CONSTITUTION AND BYLAWS

XVI—4a. SPECIAL COMMITTEE ON REVISION OF CONSTITUTION AND BYLAWS

Constitutional Changes

H. A. Furlong, M.D.: Included in this report is the Committee's recommended draft of a revised Constitution. This, of course, cannot be acted upon until next year.

Bylaws Revisions

Also included is a proposed complete revision of the Bylaws, which the Reference Committee has carefully considered. As you will note, the proposed new Bylaws are on the righthand side of the page. At the left side is a marginal note opposite each section indicating whether or not any substantial change is made in the corresponding section.

Your Reference Committee recommends adoption of the revised Bylaws as submitted by the Special Committee, with the exception of the following changes suggested by the Reference Committee:

1. Chapter 2, Section 3(b), page 3, shall read as follows:

". . . . an intern or resident physician in training in any hospital approved for such training."

2. Chapter 2, Section 3(c), page 3: In the second from last line, the word "war" should be changed to "military." Also in this subsection a comma should be inserted following the word "that" in the third from last line.

3. Chapter 2, Section 3, page 4 in the last unnumbered paragraph: Insert (e) between (d), and (f), in the third line.

Strike "s" from the word "subdivisions" in the tenth line of this paragraph.

Strike out "or" and "(e)" from the eleventh line of this paragraph.

4. Chapter 2, Section 4 on page 4, second line: Insert the words "any one or more" before the word "component."

In the second line the word "Society" is changed to "societies."

5. Chapter 2, Section 4, page 4: Change the last sentence of the first paragraph to read:

"A retired member shall pay no dues or assessments, but shall have the right to vote and hold office, and shall be entitled to receive THE JOURNAL at such rates as The Council may determine."

6. Chapter 2, Section 6, page 5: Revise the first sentence to read as follows:

"A doctor of medicine who has maintained an Active membership in good standing for twenty-five years in any one or more constituent state societies of the American Medical Association, with any five years in Michigan, with dues paid for the previous calendar year, and (1) who has attained the age of 70 years or (2) has been in practice for 50, years, may, upon application and recommendation of his component county society made at least 30 days in advance of an annual session of the House of Delegates, be elected by the House of Delegates to Life Membership in this Society."

7. Chapter 2, Section 7, page 5: The last sentence is changed to read:

"A Military Member will not be required to pay dues and assessments to this Society during the period of his service and for a period of six months immediately following the end of the quarter-year in which he is separated from such service or for the period of time immediately following such service during which he is totally disabled."

8. Chapter 9, Section 3, page 20: Eliminate the words "at the annual meeting of EACH component county society or at a designated meeting of which ample notice has been given," and start a new sentence with the capitalized word EACH.

9. Chapter 10, Section 3, page 27: Add a new paragraph (e) to read as follows:

"The Education Liaison Committee shall consist of a Chairman, a Vice Chairman, and not more than five members to be appointed by The Council Chairman with the advice of The Council. The Deans of the medical schools of Michigan and the Secretary of the Michigan State Board of Registration in Medicine shall be advisory members of this Committee without vote. The Education Liaison Committee shall advise The Council on all matters pertaining to undergraduate medical education, licensure with the Michigan State Board of Registration in Medicine, and shall set up and coordinate courses in the medical schools dealing with Medical Economics and Medical Ethics."

10. Chapter 9, Section 12, page 24: After the word "Society" in the second line insert ". . . . except that of the Secretary and Treasurer."

In other words, there is a provision elsewhere in the Constitution and Bylaws that the Secretary and Treasurer are appointed by The Council, so we have to remove the names of the Secretary and Treasurer from this particular portion of the Bylaws. That has already been determined previously.

H. A. FURLONG, M.D.: I move adoption of the Reference Committee's report as given so far.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—4b. RESOLUTION NO. 38

The Reference Committee is of the opinion that adequate provision under Section 4, Chapter 6 of the Bylaws is made for any component county society which has more than 150 active members to delegate its authority and power to discipline any of its members to its governing board.

Therefore the Reference Committee recommends disapproval of Resolution No. 38. I so move.

[*The motion was duly seconded, was put to a vote, and was carried.*]

XVI—4c. RECOMMENDATIONS

H. A. FURLONG, M.D.: The Reference Committee recommends:

That the House of Delegates establish a Standing Committee on Constitution and Bylaws whose purpose will be a continuing study of proposed changes or amendments to the Constitution and Bylaws.

That, upon the creation of such a Committee, it be charged with the duty of making a study and recommendation looking to the possible elimination of a Constitution separate from its Articles of Incorporation.

The Reference Committee enthusiastically commends the Special Committee on Constitution and Bylaws for its spendid handling of this difficult and time-consuming project. By its work it has materially contributed to the efficient and orderly operation of the Michigan State Medical Society.

THE VICE SPEAKER: We still must approve the portion of the report beginning at "The Reference Committee recommends that the House of Delegates establish a Standing Committee on Constitution and Bylaws." Is there such a motion?

H. A. FURLONG, M.D.: I so move.

[*The motion was duly seconded.*]

H. A. FURLONG, M.D.: Mr. Vice Speaker, may I say a word? The Constitution and Bylaws and the Articles of Incorporation govern in a way the charter of this organization. The Constitution itself is very brief; it is seldom changed. The Bylaws are changed often. It is in keeping with other corporations that the ruling, basic document of the corporation should be its Articles of Incorporation. Of course the Bylaws and other rules and regulations would be in addition to that.

This is something that we recommend be a matter of study and possible future development.

[*The motion was put to a vote and was carried unanimously.*]

THE VICE SPEAKER: We shall now ask for a motion from the floor for adoption of the report of the Reference Committee as a whole.

L. J. BAILEY, M.D.: I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

J. G. SLEVIN, M.D.: Mr. Vice Speaker, I would like to move a vote of commendation to the House of Delegates Committee to Review the Constitution and Bylaws, Chairmaned by Dr. Louis Bailey, and the members thereof.

Last year, as Chairman of the Committee on Committees, which had to deal with only about two chapters, I know what we were up against. Dr. Bailey and his Committee have done a fine job.

I move a vote of thanks to Dr. Bailey and his Committee.

J. D. MILLER, M.D.: Make it a standing vote, please.

[*The audience arose and applauded.*]

THE VICE SPEAKER: It was certainly a masterful job. We are extremely grateful to you, Dr. Bailey, and to your Committee. Thank you.

XVI—5. REPORT OF REFERENCE COMMITTEE ON RESOLUTIONS

XVI—5a. RESOLUTIONS NO.7, NO. 24, AND NO. 25

J. B. BLODGETT, M.D.: The Reference Committee on Resolutions considered four resolutions. Resolutions 7, 25 and 24 all dealt with the matter of social security provisions for physicians. Resolutions 7 and 25 are identical, and Resolution 24 is of the same sense as the first two.

Since the resolutions are basically equivalent, we offer a substitute resolution as follows:

Whereas, the majority of the members of the Kent County Medical Society and of the Wayne County Medical Society, who voted in a poll, indicated their preference that physicians be included under compulsory social security, and

Whereas, the delegates of these Societies feel responsible to implement the expressed desire of the majority of their constituency; therefore, be it

RESOLVED: That the House of Delegates of the Michigan State Medical Society instruct its delegates to the American Medical Association to introduce and support at the next meeting of the AMA House of Delegates a resolution favoring the compulsory inclusion of physicians under the National Social Security Act, and to take such action as to support the above resolution.

Mr. Vice Speaker, I move the adoption of this substitute resolution.

[*The motion was duly seconded.*]

L. A. Drolett, M.D.: Mr. Speaker, would it be in order to refer this entire matter back to the Reference Committee in lieu of the possibility of introduction of a new resolution at tomorrow morning's session—a carefully thought-out resolution recommending a poll of the members of the Michigan State Medical Society?

I would also like to state that one of the questions to be asked in that poll would be this: "Are you already under the present social security system or are you not?" Then, "Do you wish to have it?" The poll would be taken by a committee appointed by the Speaker, and the results would be reported back to the House.

If you will accept a motion to refer this matter back to the Reference Committee for a report tomorrow morning, I so move.

[*The motion was duly seconded.*]

L. F. Hayes, M.D. [North Central]: Doesn't the motion made by Dr. Bailey have priority?

L. J. Bailey, M.D.: No, sir.

The Speaker: A motion to refer takes precedence. The motion to refer was seconded.

J. G. Slevin, M.D.: I seconded it.

The Speaker: The motion was seconded and has precedence. The motion is to refer this back to the Reference Committee. All those in favor, say "aye"; opposed, "no." It is unanimously carried. The matter is referred back to the Reference Committee.

XVI—5b. RESOLUTION NO. 22

J. B. Blodgett, M.D.: The fourth resolution is Resolution 22, dealing with relationships with osteopathic physicians, amended by the Reference Committee, as follows:

"Whereas, the House of Delegates of the American Medical Association has determined that relationships between osteopathic and medical physicians should be considered at the state rather than the national level, and

"Whereas, other states, notably California, have already acted at a state level upon some of the problems of relationships between the two groups, and

"Whereas, many areas of the State of Michigan, and a significant percentage of the population of this State, are served by osteopathic physicians, and

"Whereas, there are some medical and social fields in which mutual understanding and action on the part of the two groups would better serve the people of the State of Michigan; therefore, be it

"RESOLVED: That the Speaker of the House of Delegates of MSMS appoint a committee of members of the House of Delegates and of The Council of MSMS to determine those relationships between osteopathic and medical physicians that require exploration, and the methods whereby such exploration can most profitably be carried out for the public good; and be it further

"RESOLVED: That the recommendations of this committee be presented to the next meeting of the MSMS House of Delegates."

The Reference Committee recommends the approval of this resolution, and I so move.

[*The motion was duly seconded.*]

[*The motion was put to a vote and was carried unanimously.*]

XVI—6. REPORT OF REFERENCE COMMITTEE ON SPECIAL MEMBERSHIPS

H. W. Devine, M.D.: The Reference Committee on Special Memberships has reviewed the resolutions for Life Membership in the Michigan State Medical Society. The names have been accredited by their local medical societies. They have been checked and approved by the Reference Committee. There are eight Retired members who are accredited and sixty Associate members approved as submitted.

R. W. Teed, M.D.: I believe it is not necessary to read all the Associate names, but I believe it would be of interest to read the names of the Life and Retired members. There aren't too many of them.

I so move.

[*The motion was duly seconded, was put to a vote, and was carried.*]

The Vice Speaker: You are authorized, sir, to read the names of the Life members and the Retired members, and not those for Associate membership.

[*Dr. Devine read the names as follows:*]

SPECIAL MEMBERSHIP RESOLUTIONS FOR LIFE MEMBERSHIP
(By Counties)

Calhoun—Roy H. Baribeau, M.D., Harry F. Becker, M.D., Carl G. Wencke, M.D.

Genesee—Barney A. Credille, M.D., George J. Curry, M.D., George L. Gundry, M.D., Rudolph W. Streat, M.D., David R. Wark, M.D.

Ingham—William C. Behen, M.D., William E. Hoffer, M.D.

Jackson—Horace Wray Porter, M.D., Earl A. Thayer, M.D., Bowers H. Growt, M.D., Charles R. Dengler, M.D.

Kent—John J. Miller, M.D.

Marquette-Alger—Wilbur L. Casler, M.D., Lloyd W. Howe, M.D.

Muskegon—Harold F. Closz, M.D.

Oakland—Frank A. Mercer, M.D., Frederick A. Baker, M.D.

St. Clair—George M. Kesl, M.D.

Washtenaw—Alger A. Palmer, M.D., Theophile Raphael, M.D., Cyrus C. Sturgis, M.D., Melissa H. Worth, M.D.

Wayne—Herbert C. Allison, M.D., Wyman D. Barrett, M.D., Zina B. Bennett, M.D., Franz L. Blumenthal, M.D., Henry S. Brown, M.D., George L. Caldwell, M.D., Edward K. Carmichael, M.D., Glenn L. Coan, M.D., Samuel J. Eder, M.D., Owen C. Foster, M.D., Mary M. Frazer, M.D., Louis J. Gariepy, M.D., Raymond B. Glemet, M.D., R. R. Goldstone, M.D., F. W. Gottschalk, M.D., Willard B. Howes, M.D., William A. Hudson, M.D., Shmarya Kleinman, M.D., Charles B. Lakoff, M.D., Harry E. Lee, M.D., Fred O. Lepley, M.D., Joseph S. Leszynski, M.D., Harry Lewin, M.D., William T. McAlonan, M.D., Frank R. Menagh, M.D., Harold F. Raynor, M.D., George G. Rieckhoff, M.D., Herbert F. Robb, M.D., Fred M. Slaughter, M.D., Eugene J. Steinberger, M.D., Gabriel Steiner, M.D., Ralph N. Tassie, M.D., Rudolph G. Tenerowicz, M.D., Silas W. Wallace, M.D.

SPECIAL MEMBERSHIP RESOLUTIONS FOR RETIRED MEMBERSHIP
(By Counties)

Calhoun—Wilma C. W. Rorich, M.D.

Gratiot-Isabella-Clare—A. Deane Hobbs, M.D.

Jackson—George H. Cook, M.D., Guy D. L. Culver, M.D., W. L. Foust, M.D.

Marquette-Alger—Charles P. Drury, M.D.

Menominee—J. W. Towey, M.D.

Wayne—Van D. Barnes, M.D., William A. Geitz, M.D.

[*To complete the list, the following Associate Memberships are printed herewith*]

SPECIAL MEMBERSHIP RESOLUTIONS FOR ASSOCIATE MEMBERSHIP

(By Counties)

Ingham—Meredith R. Saunders, M.D.
Kent—Henry D. Holkeboer, M.D.
Oakland—William W. Oliphant, M.D.
St. Clair—Charles N. Hoyt, M.D.
Wayne—Victoria L. Beckett, M.D., Ruth Berkman, M.D., Julius V. Combs, M.D., Peter G. Firnschild, M.D., John W. Hansen, M.D., Gage Johnson, M.D., James W. Hawkins, M.D., Ingeborg Krieger, M.D., David M. Levin, M.D., Sheffick J. Moround, M.D., Arthur H. Naylor, M.D., Robert W. Parr, M.D., Aloysius J. Proskey, M.D., Theodore I. Roth, M.D., John B. Sarracino, M.D., Odie T. Uddyback, M.D., George A. West, M.D.
Washtenaw—Gerald D. Abrama, M.D., Norman O. Amos, M.D., Philip C. Anderson, M.D., Dale P. Armstrong, M.D., Walter L. Barron, M.D., Charles W. Bourne, M.D., Richard B. Bourne, M.D., John W. Brink, M.D., Robert D. Brownell, M.D., Thomas R. Busard, M.D., Jack L. Bush, M.D., Robert B. Carbeck, M.D., Robert P. Christopher, M.D., Michael R. Deitz, M.D., Conrad L. Giles, M.D., Jerry M. Gray, M.D., Fred B. Groves, M.D., Francis J. Holt, M.D., William F. Howatt, M.D., Gordon L. Hyde, M.D., J. D. Isaacson, M.D., Robert H. Levin, M.D., William T. Lincer, M.D., Robert G. Logan, M.D., Louis J. Marx, M.D., Mark C. McQuiggan, M.D., Mark L. Menzel, M.D., Samuel R. Oleineck, M.D., William R. Olsen, M.D., William G. Pearson, M.D., John A. Penner, M.D., Conrad A. Proctor, M.D., Leon Ross, M.D., Robert P. Singer, M.D., John B. Tipton, M.D., Richard D. Watkins, M.D., William J. Weber, M.D., George D. Zuidema, M.D., Andrew J. Zweifler, M.D.

H. W. Devine, M.D. [*continuing*]: I move the adoption of the report as a whole.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—7. REPORT OF REFERENCE COMMITTEE ON LEGISLATION AND PUBLIC RELATIONS

XVI—7a. RESOLUTION NO. 1

L. A. Drolett, M.D.: The Reference Committee approves the adoption of Resolution No. 1, unchanged.

Mr. Vice Speaker, I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—7b. RESOLUTION NO. 3

L. A. Drolett, M.D.: Mr. Vice Speaker, your Reference Committee recommends that this resolution be adopted. The Reference Committee recommends very strongly that an intensified program of disseminating information to the legislators in the House of Representatives be carried out, and if necessary that additional help be assigned to fortify our public relations in the House of Representatives.

The reason for this is that the House of Representatives, as you know from reading the Handbook, appointed a special committee to investigate the chiropractice situation. They conducted a tour of California, Colorado and Florida. They came back with a very favorable report to the chiropractors.

I can say to you from personal experience that there is not one member of that special committee who is a friend of ours in the House of Representatives. I am very deeply concerned about this situation, and unless some hard and fast work is done in the House of Representatives within the next year I am very much afraid that disastrous legislation may be forthcoming in favor of chiropractors, to our detriment. There is an awful lot of ground work to be done, and that is why the Reference Committee recommends that very intensive work be carried out to inform these legislators and, if necessary, that additional help be assigned.

Mr. Vice Speaker, I move the adoption of this resolution.

[*The motion was duly seconded.*]

The Vice Speaker: The motion is that this resolution be adopted. The Reference Committee recommends very strongly that an intensified program of disseminating information to the legislators, namely, the House of Representatives, be carried out and, if necessary, that additional help be assigned to fortify our public relations in that House. Is there any discussion?

J. B. Blodgett, M.D.: Divide the question so that we can vote first on the resolution and then on the recommendation of the Reference Committee as a separate item.

The Vice Speaker: I shall accept your suggestion. We shall vote first on the resolution. Dr. Drolett, will you read the "Resolved" portions again, please.

[*Dr. Drolett re-read the "Resolved" sections in Resolution No. 3.*]

The Vice Speaker: You are now voting on this resolution. Is there further discussion or comment?

[*The motion to approve Resolution No. 3 was put to a vote and was carried unanimously.*]

The Vice Speaker: We shall now vote on the recommendation of the Reference Committee. Is there a second?

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—7c. RESOLUTIONS 6 AND 11

Both resolutions have the same intent. It was resolved "that whenever any governmental agency assumes responsibility for the medical care or reimbursement for such care for any individual, then such an individual will not be considered indigent, and the fair and average fee for medical service will prevail."

[*Dr. Drolett re-read the "Resolved" sections in Resolution No. 11.*]

L. A. Drolett, M.D. [*continuing*]: The Reference Committee approved both resolutions in principle. I move that Resolutions Nos. 6 and 11 be approved in principle.

[*The motion was duly seconded.*]

L. J. Bailey, M.D.: What does "approved in principle" mean?

L. A. Drolett, M.D.: Some county boards of supervisors may not at the present time be able to come up to complete governmental fee schedule agencies, but they might be able to pay fees that are agreeable to the local county medical societies and not declare the individual an indigent as long as he is receiving government aid.

[*The motion was put to a vote and was carried unanimously.*]

XVI—7d. RESOLUTION NO. 8

[*Dr. Drolett read the "Resolved" portion of Resolution No. 8.*]

L. A. Drolett, M.D. [*continuing*]: The Reference Committee considers that The Council is fully able to decide where it should hold its meetings. Evidence was produced that the Mackinac Island meeting was no more expensive than a meeting in Detroit would be, and it was believed that some recompense should be given to The Council for the hours of work they spend on our behalf.

The Reference Committee therefore disapproves of Resolution No. 8.

Mr. Vice Speaker, I move disapproval of Resolution No. 8.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—7e. RESOLUTION NO. 21

L. A. Drolett, M.D.: Gentlemen, this afternoon, in an effort to get some advice on this, I called on Mr. Sumner Whittier, Executive Vice President of Michigan

Blue Shield. He appeared before the Reference Committee and answered several questions and gave us a dissertation and some information as to the status of Blue Shield in regard to an indemnity contract as opposed to a service contract.

I sincerely believe in my own heart (and I have heard this before because I was in Washington with Mr. Whittier) that this entire House of Delegates should hear what Mr. Whittier had to say to the Reference Committee this afternoon, and then I think it would clear up a lot of discrepancies in your mind concerning Blue Shield. After listening to Mr. Whittier give us his advice, the Reference Committee unanimously voted to disapprove Resolution No. 21.

Mr. Vice Speaker, I move that Resolution No. 21 be disapproved.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—7f. RESOLUTION NO. 40

L. A. Drolett, M.D.: We explained to the Reference Committee some of the difficulty we have been having regarding the implementation of the resolution passed by the House last year in regard to a Uniform Minimum Practice Act. This is something that should be studied seriously in the public's interest and for the public's benefit, not for the benefit of ourselves or osteopaths.

After serious consideration of this problem, the Reference Committee approved Resolution No. 40, and I therefore move its adoption.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—7g. RESOLUTION NO. 41

L. A. Drolett, M.D.: It is very evident to us that the American Medical Association has punted the ball down to the constituent state medical societies, and there is conflicting opinion concerning the resolved that the delegates of the AMA arrange for this study. It further states that the study should be carried out by qualified medical educators.

In lieu of the previous resolution that has been adopted, we felt this was superfluous, and the Reference Committee disapproved Resolution No. 41.

Mr. Vice Speaker, I move disapproval of Resolution No. 41.

[*The motion was duly seconded, was put to a vote and was carried.*]

XVI—7h. RESOLUTION NO. 42

L. A. Drolett, M.D.: The Reference Committee unanimously approved this resolution, and I move its adoption.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—7i. RESOLUTIONS NO. 17, NO. 23, AND NO. 33

L. A. Drolett, M.D.: The Reference Committee disapproved all these resolutions and offer a substitute resolution.

Whereas, the selection of a single individual as Michigan's Foremost Family Physician does not do justice to the many other physicians who also deserve commendation; therefore, be it

RESOLVED: That the Foremost Family Physician award be discontinued and that, in its place, the House of Delegates of the Michigan State Medical Society, through a committee to be appointed by the Speaker of the House of Delegates, establish and award "Certificates of Commendation", which may include both scientific and/or public service, and which may be awarded to one or several physicians annually who distinguish themselves in the medical profession.

Mr. Vice Speaker, I move approval of this substitute resolution as offered by the Reference Committee.

[*The motion was duly seconded, was put to a vote and was carried unanimously.*]

XVI—7j. RESOLUTION NO. 16

L. A. Drolett, M.D.: The Reference Committee unanimously approved adoption of Resolution No. 16, and I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

The Vice Speaker: Do you move approval of the report of your Reference Committee as a whole?

L. A. Drolett, M.D.: I do, sir.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

L. J. Bailey, M.D.: I would like to move to postpone it indefinitely.

The Speaker: You are moving to postpone the substitute resolution indefinitely?

L. J. Bailey, M.D.: Yes, sir.

The Speaker: It is moved and seconded to postpone action on the substitute resolution having to do with social security.

XVI—8. REPORT OF THE REFERENCE COMMITTEE ON HYGIENE AND PUBLIC HEALTH

XVI—8a. RESOLUTION NO. 2

W. J. Zimmerman, M.D.: Discussion of this resolution by the Reference Committee underlined the fact that the State Medical Society and its component county units are overlooking an outstanding opportunity for public service and very good public relations in permitting another branch of the healing arts, together with other paramedical disciplines, to carry the banner in organizing youth fitness programs.

The Reference Committee's attention was called to the fact that the Michigan State Department of Health has expressed an interest in seeing doctors of medicine participate actively in such programs, and it was stated further that members of the Child Welfare Committee of the State Society would willingly contribute their services to county medical societies in promoting youth fitness activities on a local level.

For these reasons, the Reference Committee recommends the approval of Resolution No. 2, with the further recommendation that it be implemented forthwith by the State Society acting through its county organizations.

Mr. Speaker, I move the adoption of this portion of the report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

A. C. Stander, M.D.: I don't like to have it definitely shown that we were pushed into this by the doctors of osteopathy. I therefore recommend and move that the second "Whereas" in this resolution be deleted.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

W. J. Zimmerman, M.D.: Mr. Speaker, I move approval of this portion of the report as amended.

President-elect Engelke: Mr. Speaker, I do not apologize to the Chairman of the Reference Committee for not being able to appear at the hearing. I tried to find the committee, but apparently they had moved to another room. This goes to prove to the House that I was not asleep in my suite; I was working.

I think this is a fine resolution as just amended. I hope we can somehow or other, in this resolution, carry through to the public the fact that we are already in this business and have been for decades, and that this is just an intensification of our effort.

The Speaker: Thank you, Dr. Engelke.

President-elect Engelke: I think this would be a truer statement of the objectives of the Society. I am sorry I don't have a copy of the resolution before me

but this almost seems to me to say that this is something brand new. We have been at this business of physical fitness for an awfully long time.

I cannot move to refer. I have the privilege of speaking to the House, but that is as far as I can go. I hope that in a friendly way this motion might be changed so that this addition can be made. I hope something can be made possible to add this to it.

J. G. Slevin, M.D.: On behalf of our President-elect, I shall make a motion that this be referred back to the Reference Committee for revision in accordance with the suggestion made by our President-elect.

[*The motion was duly seconded.*]

The Speaker: The motion is to refer this back to the Reference Committee. Any discussion?

[*The motion was put to a vote and was carried unanimously.*]

XVI—8b. RESOLUTION NO. 13

W. J. Zimmerman, M.D.: The Reference Committee endorses this resolution as presented, **and recommends further that The Council of the State Medical Society arrange for continuing dissemination of the message that this resolution carries by way of The Journal of the Michigan State Medical Association and the Secretary's Letter and county society publications.**

Mr. Speaker, I move the adoption of this portion of the report.

The Speaker: I think we had better separate this. First will be action on approval of the resolution; second will be consideration of the suggestion of the Reference Committee. The motion, therefore, is to approve the resolution. Is there a second? It is seconded. Any discussion?

[*The motion was put to a vote and was carried unanimously.*]

W. J. Zimmerman, M.D.: The Reference Committee endorses this resolution as presented, and recommends further that The Council of the State Medical Society arrange for continuing dissemination of the message this resolution carries by way of The Journal of the Michigan State Medical Association, the Secretary's Letter, and county society publications.

I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—8c. RESOLUTION NO. 43

W. J. Zimmerman, M.D.: We had submitted to us the broad outline of the plan. It would take considerable time to read it. I would like to read the recommendations of the Reference Committee.

The Reference Committee was supplied with a statement from the Occupational Health Committee which brought into focus serious deficiencies in industrial health care in Michigan and throughout the nation. The broad outlines of the program to be carried out under the auspices of the Michigan State Medical Society to educate and assist industrial organizations in developing adequate facilities in this area were presented.

The Reference Committee agrees with and endorses the principles outlined but finds the plan as presented at this time too general to permit final adoption and implementation.

Therefore, rather than delay action on this worthy proposal, we submit the following substitute resolution:

Whereas, the Occupational Health Committee of the Michigan State Medical Society has petitioned The Council to approve a program to improve health maintenance in industry, and

Whereas, the Committee seeks some form of endorsement of its efforts by this House of Delegates, and

Whereas, the Reference Committee approves the objectives of the Occupational Health Committee as presented in general form; therefore, be it

RESOLVED: That the Occupational Health Committee be encouraged to continue its development of a program to improve health maintenance in industry, the program to be submitted to The Council of the Michigan State Medical Society for approval prior to implementation and to be reported to the House of Delegates at its regular meeting in 1962.

I think what I have said is self-explanatory. We felt this was just too general for definitive vote at this time. We didn't want to obstruct the work of the Committee by asking that it be delayed until another House of Delegates meeting, and therefore we have recommended the substitute resolution.

Mr. Speaker, I move approval of this substitute resolution.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

W. J. Zimmerman, M.D.: Mr. Speaker, I move the adoption of the report as a whole, as amended.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—9. REPORT OF REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

W. L. Brosius, M.D. [Wayne:]

Your Reference Committee debated this resolution at length and was informed by its adviser that the vote on this question at the September 24 meeting of the MSMS Council was very close. The implications in public relations were considered. Advertisements in The Journal are NOT considered as endorsements by the Society of the products advertised; this includes drugs. Cigarette companies display their wares in booths at commercial exhibits at the MSMS meetings. The Journal of the Michigan State Medical Society is circulated chiefly to physicians and not to the general public.

Your Reference Committee is reluctant to pass final judgment on this matter, feeling that it should be the action of the House of Delegates as a whole.

To bring the matter before the House, your Reference Committee recommends the approval of this resolution.

Mr. Speaker, I so move.

[*The motion was duly seconded.*]

XVI—9a. REPORT OF ADVISORY COMMITTEE TO WOMAN'S AUXILIARY

Your Reference Committee recommends approval of this report. Mr. Speaker, I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—9b. REPORT OF ADVISORY COMMITTEE TO MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

Your Reference Committee recommends approval of this report, and I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—9c. REPORT OF COMMITTEE ON STUDY OF PREVENTION OF HIGHWAY ACCIDENTS

Your Reference Committee recommends approval of this report, and I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—9d. REPORT OF SCIENTIFIC RADIO COMMITTEE

Your Reference Committee takes cognizance of the large and valuable amount of work done by this Committee, and recommends that this report be approved with thanks.

Mr. Speaker, I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—9e. RESOLUTION NO. 15

Your Reference Committee is unanimously recommending the acceptance of this resolution, and I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—9f. RESOLUTION NO. 30

"RESOLVED: That the House of Delegates recommend and authorize The Journal of the Michigan State Medical Society to accept properly worded advertisements from processors of tobacco and liquor."

The Speaker: We shall vote on the motion to approve this resolution. All those in favor, say "aye"; those opposed, say "no". The motion is lost.

W. L. Brosius, M.D.: Mr. Speaker, I move acceptance of the report of the Reference Committee as amended by the last motion.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—10. REPORT OF REFERENCE COMMITTEE ON WAYS AND MEANS

XVI—10a. REPORT OF MEDICAL CARE STUDY COMMITTEE

[*A. W. Strom, M.D., read the report of the House of Delegates Medical Care Study Committee*]

A. W. Strom: This Reference Committee compliments the House of Delegates Medical Care Study Committee for its excellent report and its impact on the future goals for medical care, and approves its recommendations.

The Ways and Means Committee recommends the following:

1. The immediate establishment of a Medical Socio-economic Committee to conduct research study of long-range social, political and economic trends likely to affect future medical care in Michigan.

2. This Committee urges that all component medical societies and specialty organizations create immediately medical socio-economic committees to act as subcommittees of the MSMS Medical Socio-Economic Committee.

3. The MSMS Medical Socio-Economic Committee shall consist of a Chairman and six members to be appointed by the President of MSMS, to serve for a term of three years.

4. MSMS shall immediately secure the services of a qualified socio-economist.

5. The Committee recommends the authorization of the expenditure of $30,000 for the first year of the operation of this project, as estimated by the Medical Care Study Committee.

6. To finance this project, this Committee recommends a $5 raise in dues.

Mr. Speaker, I move the acceptance of this portion of this report.

The Speaker: The motion is to approve the recommendations of the Medical Care Study Committee as printed in the Handbook.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

The Speaker: We shall now vote on the recommendations of the Reference Committee. Is there any discussion of the motion to approve?

F. B. Levagood, M.D.: May I introduce an amendment at this time, that this be worded as an "assessment of $5 to cover this expenditure." The reason is that an assessment is entirely different. If you raise the dues $5 you raise them. The $5 goes on and on and on. If we want to try this to see whether it is all right, as the Committee recommends it, fine. Perhaps it is a very laudable thing. Let's put up the money to do it.

The Speaker: Then it would be an annual assessment?

F. B. Levagood, M.D.: It would be an annual assessment for one year.

The Speaker: I think we could omit the word "annual". The amendment is to make this an assessment of $5 for one year, instead of a $5 raise in dues. It is supported. Is there any discussion?

The Speaker: All those in favor of the amendment, say "aye"; opposed, "no". The amendment is lost.

We shall now have further discussion of the motion to approve the report of the Reference Committee.

[*The motion was put to a vote and was carried unanimously.*]

XVI—10b. RESOLUTION NO. 19

A. W. Strom, M.D.: The recommendation of the Reference Committee is that Resolution No. 19 be disapproved because a Governor's study commission of governmental hospitals is impractical, expensive, and of questionable value. It is expected that the Medical Socio-Economic Committee and the MSMS socio-economist could include the intent of this resolution in their scope of activity.

Mr. Speaker, I move disapproval of the resolution.

[*The motion was duly seconded.*]

The Speaker: All in favor of disapproving this resolution, say "aye"; opposed, "no". The motion is lost.

J. G. Slevin, M.D.: I call for a division.

The Speaker: A division has been called for. All those in favor of disapproving this resolution, please stand. All those opposed, please stand. The result of the vote is 44 for disapproval and 45 against disapproval.

J. G. Slevin, M.D.: I move the adoption of the resolution.

[*The motion was duly seconded.*]

G. T. McKean, M.D.: Mr. Speaker, I move we refer the resolution to the new Committee on Socio-Economics for study and implementation if they see fit.

[*The motion was duly seconded.*]

The Speaker: The motion is to refer this resolution to our new Socio-Economic Committee. Is there any further discussion? If not, all those in favor, say "aye"; opposed, "no". The motion is carried and the resolution is referred.

A. W. Strom, M.D.: Mr. Speaker, I move the adoption of the report of the Reference Committee as a whole, as amended by the last resolution.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

TUESDAY MORNING SESSION

September 26, 1961

The fourth session of the House of Delegates convened at 9 a.m., J. J. Lightbody, Speaker of the House of Delegates, presiding.

XI—46. COMMENDATION TO H. J. MEIER, M.D. COLDWATER

M. A. Darling, M.D. [Wayne]: Mr. Speaker, I have a resolution from The Council of the Michigan State Medical Society which I should like to present with your permission.

Whereas, Dr. Harold J. (Dutch) Meier, has served organized medicine with unselfish devotion and

Whereas, he has contributed generously of his many talents as a Councilor from the Third District and with special distinction as Chairman of The Council where he has organized and expedited the work of The Council with great skill and effectiveness, and

Whereas, he has requested that he be relieved of his duties, therefore be it

RESOLVED, That this House of Delegates hereby takes cognizance of his contribution to the advancement of the ideals and activities of the Michigan State Medical Society.

M. A. Darling, M.D. [*continuing*]: Mr. Speaker, I move the acceptance of this resolution by a standing vote and without referral.

The Speaker: You have heard the motion and the

resolution, which calls for a standing vote and popular acclaim of Dr. Meier.

M. A. Darling, M.D.: Further, Mr. Speaker, I move that the Secretary forward a copy of this resolution to Dr. Meier.

The Speaker: This will be done. Thank you, Dr. Darling.

XI—47. MEDICAL SOCIETY'S RESPONSIBILITY TO PUBLIC AND THE ILL PHYSICIAN

A. C. Stander, M.D.:

Whereas, the medical profession has as its responsibility to the public that its members practice medicine properly and without jeopardy to any individual patient, and

Whereas, members of the medical profession are best able and usually the first to become aware of the deterioration of the health of the unfortunate few of its members, either mental or physical, which may interfere with their proper and safe practice of medicine, and

Whereas, there is no appropriate, humane or effective means under the present Constitution to handle these ill physicians; therefore, be it

RESOLVED: That the problem of the ill physician deemed to be incapable of proper and safe medical practice be referred to an appropriate or special committee of the Michigan State Medical Society for consideration and possible solution.

The Speaker: This resolution will be referred to the Reference Committee on Resolution.

XVI—11. REPORT OF REFERENCE COMMITTEE ON SPECIAL COMMITTEES

XVI—11a. RELATIVE VALUE STUDY COMMITTEE TO THE MEDICAL CARE INSURANCE

E. J. Tallant, M.D. [Wayne]: Your Reference Committee wishes at this point to express its admiration to Dr. Leader and the members of his Committee for undertaking and completing this monumental survey and report. One must recognize the enormous sacrifice of time and expenditure of effort that was necessitated by this endeavor.

Resolutions No. 5, No. 14, No. 28, No. 35 and No. 36, were contingent upon the establishment of this relative value scale. Your Reference Committee, therefore, deemed it prudent to first present to the House its recommendation regarding the report before submitting its recommendations regarding the aforementioned resolutions.

Discussion by members of the State Society who appeared before the Reference Committee revealed to the members of that Committee that there was a substantial lack of knowledge of the significance of this relative value scale and its mode of implementation.

To prevent controversy based upon inadequate information on the part of the membership of the State Society, and to be certain that such a plan is supported by the membership as a whole, your Reference Committee unanimously recommends:

1. That a copy of this report be sent to every active member of the Michigan State Medical Society.

2. That a referendum of the entire active membership of the State Medical Society be obtained at such time as is deemed suitable after the membership has received this report.

3. That The Council of the State Society be requested to continue the Relative Study Committee until the results of the referendum have been obtained.

Mr. Speaker, I move the adoption of this recommendation.

[*The motion was duly seconded.*]

We will discuss the motion on the floor, to adopt the first recommendation, "That a copy of this report be sent to every active member of the Michigan State Medical Society."

The Speaker: All those in favor, say "aye"; opposed, "no". The motion is carried.

The second recommendation of the Reference Committee is "That a referendum of the entire active membership of the State Medical Society be obtained at such time as is deemed suitable after the membership has received this report."

The motion of the Reference Committee is to approve this recommendation, and it has been seconded. All those in favor, say "aye"; those opposed, "no". The motion is lost.

J. B. Blodgett, M.D.: Mr. Speaker, a point of order. This is a very important question. It was decided by a voice vote. I think we should not hastily go through this vote. I call for a division of the House.

The Speaker: On which vote?

J. B. Blodgett, M.D.: On recommendation No. 2, referring the matter to the membership.

The Speaker: I accept that. A division has been called for on the vote on recommendation No. 2, "That a referendum of the entire active membership of the State Medical Society be obtained at such time as is deemed suitable after the membership has received this report."

I ask all those who are in favor of recommendation No. 2 to stand. All those opposed to approval of recommendation No. 2, please stand. Recommendation No. 2 has been approved. Thank you, Dr. Blodgett. The vote was 64 Yes to 57 No.

R. W. Teed, M.D.: I move reconsideration of the second recommendation.

[*The motion was duly seconded.*]

The Speaker: The Chair will consider the motion in order. The motion is debatable. All those in favor of reconsidering recommendation No. 2, say "aye"; opposed, say "no". We will call for a standing vote.

All those in favor of reconsidering recommendation No. 2, please stand. All those opposed to reconsideration of recommendation No. 2, please stand. The motion is 78 to 40 in favor of reconsideration.

We shall now move back to recommendation No. 2.

R. R. Cooper, M.D.: With possible corrections by Dr. Bailey, I move that the report of the Relative Value Study Committee be received without action.

The Speaker: Is there a second to that?

H. A. Furlong, M.D.: I second it.

The Speaker: The question has been called for. All those in favor, say "aye"; opposed, "no". The motion is carried.

E. J. Tallant, M.D.: Mr. Speaker, in view of the current action of the House, the third recommendation of your Reference Committee is not applicable.

The Speaker: The recommendation on No. 3 will be considered out of order in view of the action taken on resolution or recommendation No. 2.

L. J. Bailey, M.D.: Will you review what has been adopted?

The Speaker: The House approved the following in regard to the Relative Value Study report:

1. That a copy of this report be sent to every active member of the Michigan State Medical Society.

2. That this Relative Value Study be received for information by the House of Delegates without action.

L. J. Bailey, M.D.: The Reference Committee recommended a third one, that the Relative Value Study scale be continued until the results of the referendum are known.

The Speaker: That was declared out of order, Dr. Bailey.

L. J. Bailey, M.D.: No; it was declared invalid because of the action on the second recommendation. Would it be possible to amend the report at this time to recommend the continuation of the Relative Value Study Committee, period? We haven't taken any final action on this.

The intent of the Reference Committee was to continue the Relative Value Study so that it would not disappear into thin air. If we put a period after "continue the Relative Value Study Committee" you would accomplish the purposes of the Committee without tieing it to a referendum.

THE SPEAKER: Do you wish to amend the report by asking for a continuation of the Relative Value Study Committee?

L. J. BAILEY, M.D.: I would like to know the sense of the House on it, so I will so move.

THE SPEAKER: It is moved and seconded to continue the activities of the Relative Value Study Committee.

E. E. MARTMER, M.D.: I should like to offer a substitute motion:

That the Speaker of the House of Delegates appoint a committee of the House of Delegates, to be known as the Committee on Relative Value, the purpose of such Committee being (1) to receive the report of the present Committee on Relative Value; (2) that it be given the privilege, if it so desires, to conduct an opinion survey of the membership as a whole, to determine their reaction to this report; (3) that they make use of every means possible of seeing that it is thoroughly understood as a report by the membership as a whole; (4) that it have such other functions as the Speaker of the House shall decide.

That is the substitute motion for Dr. Bailey's amendment which, as I recall it, had to do with the continuation of the Relative Value Study Committee. Is there a second to Dr. Martmer's motion? It is seconded.

THE SPEAKER: The question is called for. All those in favor, say "aye"; opposed, "no". The motion is carried. You have just passed the following:

That the Speaker of the House of Delegates appoint a committee of the House of Delegates, to be known as the Committee on Relative Value, the purpose of such Committee being (1) to receive the report of the present Committee on Relative Value; (2) that it be given the privilege to conduct an opinion survey of the membership as a whole to determine their reaction to this report; (3) that they take every means possible of seeing that it is thoroughly understood as a report by the membership as a whole; (4) that it has such other functions as the Speaker may decide, and that this Committee report to the House of Delegates at the next Annual Session.

E. J. TALLANT, M.D.: Mr. Speaker, in view of the action of this House of Delegates, your Reference Committee has the following recommendations regarding the specific resolutions referred to us for consideration:

XVI—11b. RESOLUTION NO. 5

This resolution in essence is that the Relative Value Scale shall include, as a minimum, all the procedures listed in the forthcoming descriptive coding of medical service which the House of Delegates of the American Medical Association has approved.

Mr. Speaker, your Reference Committee recommends the adoption of this resolution, and I so move.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—11c. RESOLUTION NO. 14

The essence of this resolution is that the Michigan Relative Value Scale be approved as the basis for negotiating fee schedules with all governmental agencies.

Mr. Speaker, your Reference Committee recommends the adoption of this resolution with one change—that the word "instructed" in the second "Resolved" be changed to "requested".

I so move.

This is because of the fact that the House of Delegates cannot instruct the Board of Directors of Blue Shield. They can request, but they have no power to instruct.

[*The motion was duly seconded.*]

L. R. LEADER, M.D.: Mr. Speaker, in reading this resolution, so far we haven't approved this. We have been told how to use it. Now you are voting on a motion on how to use it.

THE SPEAKER: The Chair will rule that this resolution is out of order in view of previous action by the House. Is there any objection to the rule of the Chair? Proceed.

XVI—11d. RESOLUTION NO. 28

The essence of this resolution is that the House of Delegates accept and approve the report of the Relative Value Study Committee. This has already been done by the House.

Mr. Speaker, your Reference Committee recommends the adoption of this resolution.

THE SPEAKER: The Chair will rule that this resolution also is out of order, in view of previous action taken by the House of Delegates.

XVI—11e. RESOLUTION NO. 35

The essence of this resolution is that the relationship between the unit values for medical, surgical and other services holds only when the present average value of the unit is used as a basis of comparison. This fact was recognized by the Relative Value Study Committee and was one of the factors in the development of the X and Y factors.

Mr. Speaker, your Reference Committee recommends that this resolution as worded be disapproved, and submits the following substitute resolution:

RESOLVED: That a permanent committee of the House be appointed by the Speaker of the House for the purpose of periodic re-evaluation and correction of any present or future inequities which may be due to any economic or other change. This committee shall report to the House at the time of its Annual Session, as do the other permanent committees.

Mr. Speaker, your Reference Committee recommends the adoption of this substitute resolution, and I so move.

THE SPEAKER: The Chair will rule that this resolution is also out of order, due to previous action of the House.

E. J. TALLANT, M.D.: Mr. Speaker, I move the adoption of the report of your Reference Committee as a whole, as amended by the House of Delegates.

[*The motion was duly seconded.*]

XVI—11f. RESOLUTION NO. 36

The essence of this resolution was that any unit value in any fee schedule be so administered that it will be reflected and be enforced by the cost of living indexes by the Department of Labor.

Your Reference Committee discussed this at great length and felt it was too narrow and too binding a way of wording it, because the cost of living index of the Department of Labor can fluctuate 1 or 2 cents.

I know Dr. Leader's Committee does not want to put a dollar value on this, but for clarification of the resolution I shall.

In everyone's thinking, one unit is a $5 value at this time. If the cost of living index becomes $5.05, then the unit would become $5.05. If the cost of living index is $4.99, the unit would be $4.99. This, we believe, is too narrow a way of handling it, and this is why we recommended the previous resolution, to have a permanent committee study the problem and keep on top of it, and vary the unit accordingly.

Your Reference Committee recommended disapproval of this resolution, and I so move.

[*The motion was duly seconded.*]

THE SPEAKER: All those in favor, say "aye"; opposed, "no". The motion is carried and resolution No. 36 is disapproved.

Now, the motion on the floor is to approve the report of the Reference Committee in toto, as amended.

[*The motion was put to a vote and carried.*]

XI—48. HOSPITAL STUDY COMMISSION FOR PUBLICLY OPERATED HOSPITALS

W. J. Yott, M.D.:

Whereas, the University of Michigan study of hospitals and medical economics, conducted under the direction of Walter J. McNerney, only covered the privately operated hospitals in Michigan and was concerned with the character and effectiveness of the use of private hospitals and with the care given by the private doctors of medicine in Michigan, and

Whereas, this report failed to consider the character, effectiveness and efficiency of hospitals of Michigan operated by the State or its various political subdivisions and the health care of patients in such hospitals, which is and ought to be of prime concern to the taxpaying citizens of Michigan, and

Whereas, any scientific study of such nature is invalid unless it be a comparison study, and

Whereas, the taxpaying citizens have a right to know by comparison how efficient, effective and economical such government operation of medical facilities would be, and

Whereas, the citizens of Michigan have a right to an impartial study of government-operated medical facilities in Michigan so that they may form a reasonable comparison with private medical care, and

Whereas, the Kellogg Foundation is interested in such matters or they would not have carried out the original investigation, and

Whereas, the American fair play system would warrant a comparison investigation; therefore, be it

RESOLVED: That the House of Delegates of the Michigan State Medical Society recommend to The Council of MSMS that a delegation be appointed to propose to the Kellogg Foundation or other charitable foundation that they carry out a study of all federal hospitals and medical facilities in Michigan operated by the State or any of its political subdivisions concerning the health care given patients in such institutions and, in their report, to compare such facilities with privately operated hospitals in Michigan as contained in the McNerney Report.

The Vice Speaker: This resolution will be referred to the Reference Committee on Ways and Means.

XI—49. APPRECIATION TO MEMBERS OF RELATIVE VALUE STUDY COMMITTEE

T. J. Dillon, M.D.:

Whereas, the Relative Value Study Committee has accomplished its purpose with great insight and devotion to its assigned task; therefore, be it

RESOLVED: That the House of Delegates of the Michigan State Medical Society extend its thanks to the Relative Value Study Committee for its contribution to the Michigan State Medical Society.

The Vice Speaker: There is support for this, and I think I will cancel the usual referral and ask for standing acclamation.

XVI—12. REPORT OF REFERENCE COMMITTEE ON MEDICAL SERVICE AND PREPAYMENT INSURANCE

XVI—12a. REPORT OF PRESIDENT OF MICHIGAN MEDICAL SERVICE

The discussion of this can be facilitated by dividing it into sections as numbered in the report.

1. Michigan Medical Service progress report concerning MSMS 1960 House of Delegates actions affecting Blue Shield:

We note that a majority of the recommendations of the House of Delegates to Michigan Medical Service have been acted upon. We accept the statement that it is the intent of Michigan Medical Service to comply with the sense of resolutions directed to it by the Michigan State Medical Society when not restrictive to good management practices.

The statement concerning the Blue Shield concept on page 5 of the report, formulated by the National Association of Blue Shield Plans, is worthy of repetition:

"Blue Shield is a nonprofit community service, designed to provide economic security against the cost of necessary medical care. Created and sponsored by the medical profession, Blue Shield represents a collective contribution of participating physicians to the welfare of their communities. The policies and the services of Blue Shield are guided by physicians and civic leaders without compensation, as trustees or directors of Blue Shield's member plans throughout the United States.

"Blue Shield serves all segments of the community, not just those who have the most favorable economic and health status. Blue Shield continuously seeks to equate its benefit payments to the normal charge of physicians, in order to assure the patient that his benefits will meet the cost of covered services. Blue Shield members have the right to continue their enrollment for life, regardless of age, health or work status."

Mr. Vice Speaker, I move the adoption of this report.

[*The motion was put to a vote and was carried unanimously.*]

J. W. Rice, M.D.: Blue Shield Rate Adjustment: We have reviewed the recommendations of the Commissioner of Insurance for Michigan, and we recommend their further careful study.

Mr. Vice Speaker, I move the adoption of this portion of the report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

J. W. Rice, M.D.: Michigan Blue Shield Enrollment: It is noted that the Blue Shield enrollment has had a significant drop in the past year. We appreciate the factors responsible for this decrease, namely, the rate increases and the public hearings. We trust that this trend will be reversed.

Mr. Vice Speaker, I move the adoption of this portion of the report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

J. W. Rice, M.D.: Financial: We are encouraged by an improvement in the report of the financial position of Michigan Medical Service subsequent to the rate increase of 11.5 per cent effective July 1, 1960. We anticipate continued improvement subsequent to the 10 per cent rate increase effective June 1, 1961.

Mr. Speaker, I move the adoption of this portion of the report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

J. W. Rice, M.D.: Annual report of the Professional Relations Division: We recommend that the efforts of the Utilization Control Division of the staff be expanded and increased. Specifically, (1) the need for more intensive routine random sample auditing of doctors' service reports by comparison with hospital records; (2) the extension of the investigation of valid complaints, and (3) monthly comparison auditing of office procedures by IBM and electronic equipment.

Mr. Vice Speaker, I move the adoption of this portion of the report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

J. W. Rice, M.D.: Medicare and Veterans Hometown Care Program: These sections are recommended for your consideration, without comment.

Mr. Vice Speaker, I move the adoption of this portion of the report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—12b. RESOLUTION NO. 4

J. W. Rice, M.D.: Your Reference Committee has deleted the words from the first "Resolved," "which are approved by the Joint Commission of Accreditation," so that it now reads:

"RESOLVED: That the Michigan State Medical Society strongly and urgently recommends that all governmental agencies, including welfare agencies, reimburse all hospitals for no less than the actual per diem cost of necessary hospitalizations of all patients for whom they may be responsible; and be it further

"RESOLVED: That determination of such costs will be based on the findings by the quarterly Blue Cross audits."

Mr. Vice Speaker, I move approval of resolution No. 4 as changed, and further **recommend that The Council of the Michigan State Medical Society forward this resolution to the Michigan Hospital Association and the MSMS Legal Affairs Committee.**

[*The motion was duly seconded.*]

[*The motion was put to a vote and was carried unanimously.*]

XVI—12c. RESOLUTIONS NO. 12 AND NO. 29

It is noted that these resolutions are identical in content and wording.

This Reference Committee recommends that the first "Resolved" portion be changed by adding the phrase ". . . . that with the approval of the county medical society" so that it reads as follows:

"RESOLVED: That the House of Delegates of the Michigan State Medical Society recommends that, with the approval of the county medical society, the Uniform Fee Schedule for Governmental Welfare Agencies be elevated to the level of the $5,000 family income of Blue Shield, commonly known as Schedule B; and be it further

RESOLVED: That The Council of the Michigan State Medical Society be instructed to take the necessary action to implement this resolution."

Mr. Vice Speaker, I move the approval of resolutions No. 12 and No. 29 as reworded.

[*The motion was duly seconded.*]

We shall now vote on the amended resolution as presented by Dr. Rice. All in favor, say "aye"; opposed, "no." It is carried.

XVI—12d. RESOLUTION NO. 18

J. W. Rice:, M.D.: Your Reference Committee has noted that the content of this resolution was considered by this House of Delegates in 1959 and disapproved at that time.

Mr. Vice Speaker, we recommend that Resolution No. 18 be disapproved, and I so move.

[*The motion was duly seconded, was put to a vote, and was carried.*]

XVI—12e. RESOLUTION NO. 37

J. W. Rice, M.D.: Your Reference Committee after considerable discussion has recommended the deletion of certain words in the first "Resolved" so that it would now read:

"RESOLVED: That this House of Delegates reaffirm its belief in community rating and service principles" with the elimination of the second "Resolved."

Mr. Vice Speaker, I move the adoption of this resolution as amended.

[*The motion was duly seconded, was put to a vote, and was carried.*]

XVI—12f. RESOLUTION NO. 39

J. W. Rice, M.D.: The Reference Committee recommends deletion of the second "Resolved" in its entirety, and I so move. That is, I move adoption of this resolution with deletion of the second "Resolved" in its entirety.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—12g. RESOLUTION NO. 45

J. W. Rice, M.D.: Because Michigan Medical Service is working on a supplemental benefits program which can be compared to a major medical program, your Reference Committee recommends that the "Resolved" part of this resolution be amended to read:

"RESOLVED: That the House of Delegates authorize The Council to make appropriate studies of supplemental insurance programs for MSMS members."

Mr. Vice Speaker, I move the adoption of this resolution as amended.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—12h. RESOLUTION NO. 26

J. W. Rice, M.D.: Your Reference Committee has deleted the second "Resolved."

This resolution on hospital staff payments is supported by an intensive study made by the Special Committee on Hospital Emergency Service of the Wayne County Medical Society and approved by its Council on April 21, 1961.

The Reference Committee further recognizes the difficulties in defining the words "supervision" and "responsibility" as used in this resolution. We feel that these are staff problems in each individual hospital.

Mr. Vice Speaker, I move approval of this resolution as amended.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—12i. RESOLUTIONS NO. 10 AND NO. 27

J. W. Rice, M.D.: The content and wording of these two resolutions are identical.

Your Reference Committee recommends total deletion of the first "Whereas" and minor changes in the second "Whereas" so that it would now read:

"Whereas, at previous sessions of Michigan State Medical Society the House of Delegates opposed the publication of lists of participating physicians by Michigan Medical Service; therefore, be it

"RESOLVED: That the 1961 House of Delegates reaffirm this prior action."

Mr. Vice Speaker, I move the adoption of Resolutions No. 10 and No. 27 as amended.

[*The motion was duly seconded.*]

The Vice Speaker: The question is called for. Those in favor, say "aye"; opposed, "no." It is carried.

TUESDAY EVENING SESSION
September 26, 1961

The fifth session of the House of Delegates convened at 8:15 p.m., J. J. Lightbody, M.D., Speaker of the House of Delegates, presiding.

The Speaker: Tonight we have a special order of business. The general meeting of the Michigan State Medical Society, with Dr. Kenneth Johnson presiding.

[*President Kenneth H. Johnson, M.D., assumed the Chair.*]

XVII. GENERAL MEETING OF MICHIGAN STATE MEDICAL SOCIETY

The President: Thank you, Mr. Speaker.

The Constitution and Bylaws of this Society provide for a general meeting once a year. As your President I respectfully call this meeting to order.

One year ago, this House elected Dr. Otto Engelke as its President-elect. I am certain that this choice was based upon his integrity of purpose and a knowledge of his excellent service in this House, his obvious leadership qualities, and possibly to some degree the biting sense of humor he displays in times of crisis.

I would like to deviate for a moment and say that I wrote this as "biting sense of humor," because I know of no person I have ever known who is able t

get up and come to a point as bluntly as Dr. Engelke and still make everybody laugh.

I sent my script down to the pool to have it typed, and when it was returned to me it came out as "abiding sense of honor." [*Laughter*] I have no quarrel with Dr. Engelke's abiding sense of honor, but that isn't what I said. [*Laughter*] I said "biting sense of humor," and I think all of you who are familiar with him in the House will agree with me that that is true.

I can personally attest, and know it will be substantiated by other officers of the Society, The Council and the members of this House and all members of the Michigan State Medical Society, that he has carried out his duties well and is ready to assume the position of President of this great Society.

Will the Speaker and the Chairman of The Council conduct Dr. Engelke to the platform, please?

[*The audience arose and applauded.*]

PRESIDENT JOHNSON [*continuing*]: Otto, it is a great personal privilege for me to congratulate you on this highest honor the Society can bestow. I know, as do all Past Presidents, that this honor brings with it a great deal of responsibility and hard work. We have complete confidence in your ability to respond well to its demands.

As retiring President, therefore, I pass on to you the badge of office, the Medallion of the Michigan State Medical Society.

And so to all the members of your Society, I present the new President of the Michigan State Medical Society, Dr. Otto K. Engelke.

[*The audience arose and applauded.*]

O. K. ENGELKE, M.D.: Thank you, Dr. Johnson. I want the members of this Society, the distinguished officers here and our guests (to borrow a phrase from you, Ken), to know the deep humility that I feel as I accept this charge. I also want you all to know, as I have told you before, that I shall do my very best to do the job that goes along with this honor.

Now I would like to say that an honor like this is too much for one man, and I want to share it. When I was elected a year ago, I told you that this honor should be shared with Mrs. Engelke and my family, who have taken a lot more guff from me than this House of Delegates ever did, and who have put up with me a lot longer. They are here tonight, sitting up in the balcony. Mary Ellen, will you stand, please? My daughter is here too; will you stand, too, please?

[*The audience arose and applauded.*]

I also want to share credit with that great Washtenaw County Medical Society and the delegation that they have sent here year after year, who worked so hard for the health of the people of this State, as you all do in meetings of this Society. I don't know exactly where they are sitting, but I know they have been busy as usual, and they have been standing many times, and you can probably pick them all out.

Then there is the group of health officers and their wives who are here, many of them in the back of the room, some up in the balcony. As I have told these men, I think one is judged by the company he keeps. Certainly their record of cooperation with this great Society, as your Preventive Medicine Section, is outstanding in this country.

Last, but of course not least, I want to pay tribute to everyone of you here for the marvelous job you do and for taking advantage of your opportunities to do things for the benefit of the public of this great State.

I want to pay tribute to Dr. Darling, who immediately preceded Dr. Johnson, and I want to tell you that as President-elect in this first year I come to this job reassured by the excellent support given to the officers by the professional staff of the State Society.

With this staff, with your Council, with officers like Dr. Johnson (and we shall talk about him a little more later) and Dr. Darling and others, and our Secretary and the others of the professional staff, this is an opportunity that promises to be fun and that promises much in the way of accomplishment.

Thank you, Ken. I shall do my best. [*Applause*]

Dr. Johnson, it is my privilege now to ask you to stand. As President of the Society, with mixed emotions I turn over to you these two tokens of the high esteem in which your are held by this Society. This Key, Dr. Johnson, is one of them. We also have here a Scroll presented by the Michigan State Medical Society to Dr. Kenneth H. Johnson, President from 1960 to 1961, in deep appreciation and grateful recognition of the distinguished service rendered to Michigan. It is dated at Grand Rapids September 26, 1961. This Scroll is signed by D. Bruce Wiley, M.D., Secretary and H. J. Meier, M.D., Chairman of The Council.

I know Dr. Johnson would want me to say that Marian Johnson, too, had an awfully important part in the job he has done, and will continue to work for the Society. Congratulations, Dr. Johnson.

[*The audience arose and applauded.*]

PRESIDENT JOHNSON: Thank you, Otto. To the members of this House of Delegates and to the State Society, I would like to present Mrs. Johnson, who is also sitting in the balcony.

[*The audience arose and applauded.*]

PRESIDENT JOHNSON [*continuing*]: And now, for the last time, I will "shoot my cuffs" and disappear. [*Laughter*]

O. K. ENGELKE, M.D.: This is a meeting of the membership of the Michigan State Medical Society. Is there any additional business to come before the membership? Dr. Meier, I am surprised! [*Laughter*]

H. J. MEIER, M.D.: This is unique. I don't recall any particular business at a general meeting where a vote had to be taken, but I am sure it will be a pleasure to present this resolution:

Whereas, Kenneth H. Johnson, M.D., is today completing a year of distinguished service as President of the Michigan State Medical Society, thereby climaxing dedicated years of continuous service as an official of this Society, and

Whereas, he has displayed during his three years as Vice Speaker and three years as Speaker of the House of Delegates the highest quality of thoughtful and conscientious leadership, and

Whereas, over and above the usual duties of his demanding office he has been primarily responsible for the all-important day-to-day decisions that disposed of our outworn headquarters, and has given the Michigan State Medical Society a beautiful, efficient and permanent home, and

Whereas, Dr. Johnson, in keeping with the highest traditions of medicine, has put his heart as well as his hands to the task he has undertaken; therefore, be it

RESOLVED: That this State Society express herewith its respect, admiration and appreciation to Dr. Johnson, and in so doing acknowledge the overwhelming debt of gratitude due him from his profession; and be it further

RESOLVED: That this resolution be appropriately reproduced and illuminated and placed in Dr. Johnson's hand.

Mr. President, I move that this resolution be adopted without referral to a reference committee, and by a standing vote.

[*The audience arose and applauded.*]

O. K. ENGELKE, M.D.: It is declared carried.

This was the fastest action on any resolution before this Society, I am sure. It is certainly one of the most deserving. It is carried unanimously and immediately. Thank you, Dr. Meier.

For the benefit of those of you who may not know of the honors already bestowed upon Dr. Meier, may I say that if we had not already done so we would at this time be presenting a resolution almost identical to the one presented to Dr. Johnson, to Dr. Meier who will not be Chairman of The Council any more. We have just worn the fellow out. I think there are some here who

may not know that he has been so honored. May we have a hand for Dr. Meier?

[*The audience arose and applauded.*]

O. K. Engelke, M.D. [*continuing*]: Speaker Lightbody has a special order of business for the membership.

The Speaker: Mr. President, Ladies and Gentlemen:

I have before me a beautiful walnut box which was carved and constructed by Dr. William LeFever. Inside this box is a gavel that was made by Phillip Penberthy, the brother of our late Grover S. Penberthy. This gavel was made from wood salvaged from the original Beaumont log house at Mackinac Island, and is one of four gavels made by Phillip Penberthy. One was presented to the American Society for the Surgery of Trauma, one to the Association of Military Surgeons by Dr. Carleton Fox, and this, the final gavel, is being presented to the Michigan State Medical Society by Dr. Fox.

I am pleased to present this to you, Dr. Engelke, as the official representative of the Michigan State Medical Society on behalf of Dr. Fox.

O. K. Engelke, M.D.: Thank you very much, Mr. Speaker and Dr. Fox. I accept this gavel on behalf of the Michigan State Medical Society. I know that the tradition that is behind this gavel and that has followed it through the years will be matched by the performance of this Society in years to come. This gavel will be passed on from President to President.

Thank you very much, Dr. Fox.

I think it is now quite proper to declare the meeting of the membership adjourned and to return the podium to Dr. Lightbody. Thank you very much. [*Applause*]

IX—1.—PRESENTATION OF MICHIGAN'S FOREMOST FAMILY PHYSICIAN

Will two members of the House please escort Dr. George Raynale to the platform?

The Speaker: Dr. Raynale, it gives me a great deal of pleasure, on behalf of the Michigan State Medical Society and the House of Delegates, to present to you this award as Michigan's Foremost Family Physician for the year 1961, and this scroll, which reads as follows:

"Michigan's Foremost Family Physician Award, 1961, is presented to George Raynale, M.D., as a practitioner of medicine over a period of many years, for an outstanding quality of medical care rendered to Michigan citizens, and for constant constructive effort to improve the profession and science of medicine. s/Kenneth Johnson, M.D., and D. Bruce Wiley, M.D."

Congratulations, Dr. Raynale. [*Applause*]

George Raynale, M.D.: Ladies and gentlemen, words absolutely fail me. I am unable really to express my gratitude for this great honor. I want to thank you. Thank you [*Applause*]

XVIII. TRIBUTE TO DECEASED MEMBERS

The Speaker: We pause in our deliberations to pay tribute to previous members of this House of Delegates who have passed on during the year. I ask the delegates to stand while I read the names of these men. We shall then remain standing for a moment of silence.

[*The House of Delegates stood in silent tribute to the following deceased members:*]

Kent County

W. B. Mitchell, M.D.

Lenawee County

H. E. Isley, M.D.

Wayne County

T. T. Callaghan, M.D.
Russell W. Alles, M.D.
Duncan A. Campbell, M.D.
Kenneth M. McColl, M.D.
Richard M. McKean, M.D.
Lawrence Reynolds, M.D.
R. V. Walker, M.D.

Wexford County

M. R. Murphy, M.D.

XVI—4d. SUPPLEMENTAL REPORT OF REFERENCE COMMITTEE ON CONSTITUTION AND BYLAWS

H. A. Furlong, M.D.: Mr. Speaker, as you have stated, there is one item of business relating to changes in the Constitution and Bylaws that was presented to the 1960 House of Delegates and approved by the Reference Committee. Because it involved a change in the Constitution and Bylaws it was laid over for one year and is properly to be voted upon at this session of the House of Delegates. It has to do with Resolution No. 44 of the 1960 House of Delegates, which was approved by the Reference Committee and by the House.

Resolution No. 44 amends Article X, Section 1 of the Constitution and Bylaws and has to do with the composition of The Council. This resolution is found on page 42 of the Proceedings of the 1960 House, and the amendment reads as follows:

Whereas, The Council of the Michigan State Medical Society is the executive body of the Society, and

Whereas, it acts for the Society as a whole and for the House of Delegates between sessions, and

Whereas, it is essentially in these capacities a unicameral legislative body, the composition of which should bear some relationship in its apportionment to the composition of the House of Delegates for which it acts, and

Whereas, reappointment of The Council districts with growth of population is unwieldy; therefore, be it

RESOLVED: That Article X, Section 1 of the Constitution of the Michigan State Medical Society be amended in its second sentence from "It shall consist of one Councilor from each councilor district," etc., to "It shall consist of one Councilor from each councilor district or one Councilor for each ten delegates when the number of delegates from a district exceeds ten," etc.; and be it further

RESOLVED: That Chapter X, Section 12 of the Bylaws of the Michigan State Medical Society be amended to delete the Sixteenth, Seventeenth and Eighteenth Districts now allotted to Wayne County.

H. A. Furlong, M.D.: I move the adoption of this resolution.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XI—50. SURVEY AND STUDY OF CHIROPRACTIC PRACTICE IN MICHIGAN

L. A. Drolett, M.D. (Ingham):

Whereas, the House of Delegates of the Michigan State Medical Society has adopted Resolution No. 3, directing the dissemination of a considerable volume of factual, pertinent information regarding the practice of chiropractic to the members of this Society, the Michigan Legislature and the people of Michigan, and

Whereas, the Michigan House of Representatives has received a recommendation from a committee of its members calling for the recognition of chiropractic services as "physicians' services" under Michigan law, evidencing the immediacy of the need to provide indisputable facts regarding chiropractic practice and practitioners to the Legislature, and

Whereas, information gathered by the Michigan legislative committee regarding chiropractic practice and practitioners was compiled in states other than Michigan, and the Legislature should have current information dealing specifically with Michigan chiropractors, and

Whereas, for the benefit of the Legislators, research regarding Michigan chiropractors should be conducted in a manner which will clearly be impartial, to eliminate any attempt to discount the same as having been compiled by biased parties, and

Whereas, the lack of unbiased information could result in grave danger to the people of Michigan were it to result in the extension of practice privileges to unqualified practitioners; now, therefore, be it

RESOLVED: That this House of Delegates request

The Council to seek the services of a group such as the Kellogg or Mott Foundation to conduct an unbiased survey and study of chiropractic practice in Michigan, thereby assuring that such survey will not be criticized as being biased or partial; and be it further

RESOLVED: That the results of such survey be transmitted to The Council of the Michigan State Medical Society for dissemination of information to the physicians of Michigan and the Michigan Legislature; and be it further

RESOLVED: That the House of Delegates give this resolution immediate action.

Mr. Speaker, I move for immediate adoption of this resolution.

[*The motion was duly seconded.*]

THE SPEAKER: Is there any discussion? The question is called for. All those in favor, say "aye"; opposed, "no." The motion is carried.

XVI—12j. RESOLUTIONS NO. 9 AND NO. 32

J. W. RICE, M.D.: These resolutions are identical in content and wording.

J. W. RICE, M.D.: In view of the multiple recommendations that have been made by the Insurance Commissioner, your Reference Committee considered these resolutions most carefully, and we recommend that they be referred to The Council of the Michigan State Medical Society for transmittal to an appropriate committee of that body for study.

Mr. Vice Speaker, I move the adoption of this portion of the report.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—12k. RESOLUTIONS NO. 20 AND NO. 31

J. W. RICE, M.D.: The Reference Committee recognizes that this House of Delegates is concerned with the elections of the Directors of Michigan Medical Service. We feel that the wishes of the House should be respected in the election of these Directors. The Reference Committee split equally in a vote on Resolutions No. 20 and No. 31.

J. B. BLODGETT, M.D.: I would move an amendment to that the "Resolved" would say . . . "No member representing the Michigan State Medical Society on the Board of the Michigan Medical Service should serve more than six years in any seven-year period."

THE VICE SPEAKER: Is it supported? It is supported.

THE VICE SPEAKER: You are voting on the following:

"That we reaffirm the action of the 1959 House of Delegates that no member representing the Michigan State Medical Society on the Board of Michigan Medical Service should serve more than six years in any seven-year period."

This is the amendment to the original motion.

GERALD DRAKE, M.D.: [Northern Michigan]: A point of order, sir. We are voting only on the change in terminology suggested by Dr. Blodgett, not the entire resolution.

THE VICE SPEAKER: That is correct. You are voting on the amendment. All those voting in the affirmative, please stand. The opposed, please stand. The amendment is carried by a vote of 81 for and 28 against.

THE VICE SPEAKER: Now you are voting on the resolution as amended.

Those in favor, please stand. You are standing in affirmation and are being counted. Those in opposition, please stand. The resolution is lost by a vote of 44 votes and 70 votes against. The amendment carried, but the motion lost.

XVI—12 l. RECOMMENDATION

J. W. RICE, M.D.: In conclusion, gentlemen, it is the considered and unanimous opinion of this Reference Committee **that the selection of future Reference Committees on Medical Service and Prepayment Insurance of this House of Delegates be carefully selected so that a majority of the members are not from the Board of Directors of Michigan Medical Service. This will insure more critical and unbiased consideration of Michigan Medical Service activities. It will also serve as an indoctrination to other members of the House of Delegates interested in these important spheres of medical economics.**

Mr. Vice Speaker, at this time I move the adoption of this entire report as amended.

[*The motion was duly seconded, was put to a vote, and was carried.*]

XVI—13. REPORT OF REFERENCE COMMITTEE ON NATIONAL DEFENSE AND DISASTER PLANNING

XVI—13a. RESOLUTION NO. 34

D. D. FINLAYSON, M.D.: This is the amended "Resolved":

"RESOLVED: That the Michigan State Medical Society request the Director of the Michigan Department of Health and the Michigan State Office of Civil Defense to confirm the elected medical civil defense director and co-director for medical civil defense of Region 4; further, their status be approved and confirmed by the State Health Commissioner in accordance with the MSMS suggested procedure to establish a medical civil defense regional organization. This is urgent, since the action in Region 4 is to be considered a pilot plan for the State."

Mr. Vice Speaker, I move the acceptance of this resolution.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XVI—10c. SUPPLEMENTAL REPORT OF WAYS AND MEANS REFERENCE COMMITTEE

XVI—5e. RESOLUTION NO. 48

A. W. STROM, M.D.: It seems to the Reference Committee on Ways and Means that the McNerney report has developed a lot of heat under a number of people's collars before it has had an opportunity to sink into their heads.

After careful study of Resolution No. 48 our Reference Committee wishes to present a substitute resolution, which will be later introduced.

Our Reference Committee noted that the University of Michigan Study of Hospital and Medical Economics has not been completely studied and digested by the Michigan State Medical Society; nor has the Governor's commission, which authorized this study, had an opportunity to do so. Funds have now been made available for the Governor's commission to hear reports in the near future from interested groups, among which will be the Michigan State Medical Society. Uninformed criticism of the University of Michigan Study at this time is most unwise.

As pointed out to the House of Delegates last night in our original report, medical socio-economic problems raised in Resolution No. 48 could well be a part of the activity of a medical socio-economist whose employment you have approved.

Our Reference Committee also notes with approbation that this resolution does not require the expenditure of considerable amounts of MSMS funds.

The substitute resolution proposed by our Reference Committee is:

Whereas, the University of Michigan Study of Hospital and Medical Economics covered only the privately operated hospitals in Michigan and was concerned with the character and effectiveness of the use of private hospitals and with the economics of the care given by the private doctors of medicine in Michigan, and

Whereas, the taxpaying citizens of Michigan have a right to know how efficient, effective and economical the

government operation of federal, state, county and other governmental hospitals in Michigan is; therefore, be it

RESOLVED: That the House of Delegates of MSMS recommend to The Council of MSMS that it appoint a committee to approach a foundation or foundations to propose that such foundation make funds available to carry out an impartial study of all governmental hospital and medical facilities in Michigan regarding the utilization of such hospital and medical facilities and the health care given patients in such institutions.

Mr. Vice Speaker, I move approval of this substitute resolution.

[*The motion was duly seconded.*]

C. I. Owen, M.D.: There is one point in the original resolution that it is important to emphasize. The word "hospital" is not enough. It should be "hospitals and medical facilities."

There are many governmental medical facilities competing with private practice and doing the same type of work as private practice, but that are not hospitals.

I move that wherever it says "hospitals" we add "and medical facilities."

The Vice Speaker: This is an amendment and is supported. Any discussion?

[*The amendment was put to a vote and was carried unanimously.*]

[*The motion, as amended, was then put to a vote and was carried unanimously.*]

XVI—5a. SUPPLEMENTAL REPORT OF REFERENCE COMMITTEE ON RESOLUTIONS

J. B. Blodgett, M.D.: The Reference Committee on Resolutions has met relative to the matter of social security and presents a substitute resolution which is probably not controversial. This is a substitute resolution for Resolutions No. 7, No. 24 and No. 25, and reads as follows:

XI—51. INCLUSION OF MDs UNDER SOCIAL SECURITY

Whereas, considerable approval of compulsory social security for doctors of medicine of this State has been indicated by polls of some component county medical societies and in a poll of the Michigan State Medical Society authorized by this House in 1958, and

Whereas, compulsory social security would include all doctors of medicine in Michigan and in the United States, and

Whereas, certain allied professions have chosen to be included in compulsory social security, and

Whereas, the delegates of the State Medical Society to the American Medical Association should be informed of and represent as accurately as possible the enlightened wishes of all their constituents in the State; be it therefore

RESOLVED: That The Council of MSMS promptly conduct a poll of our membership to determine as accurately as possible:

1. How many members of MSMS are covered by social security, and how long they have been covered.

2. How many members of MSMS favor inclusion in social security. (Including how many of these people are in social security and how many are not in social security.)

3. How many members of MSMS do not favor inclusion in social security.

4. How many members of MSMS are undecided.

5. What age is the reporting member.

And be it further

RESOLVED: That this information be available to the MSMS delegates to the American Medical Association.

Mr. Speaker, I move the adoption of this substitute resolution.

[*The motion was duly seconded.*]

The Speaker: The question is called for. All those in favor, say "aye"; opposed, "no." It is carried.

XVI—5d. RESOLUTION NO. 47

J. B. Blodgett, M.D.: The Reference Committee approved this resolution.

Mr. Speaker, I move the approval of Resolution No. 47.

[*The motion was duly seconded.*]

J. G. Slevin, M.D.: I offer the following substitute resolution to eliminate these controversial words which might be dangerous from a malpractice point of view:

Whereas, members of the medical profession are best able and are usually the first to become aware of the deterioration of the health of fellow physicians which may interfere with the proper practice of medicine, and

Whereas, there is no appropriate means under the present Constitution or Bylaws to resolve this problem of the ill physician; therefore, be it

RESOLVED: That the problem of the ill physician may be referred to a special committee of the Michigan State Medical Society for consideration and action.

The Speaker: Was there a second to this? It is seconded.

All those in favor of this substitute resolution, please stand. All opposed, please stand. The substitute motion passes by a vote of 59 for it and 35 against it.

J. B. Blodgett, M.D.: Mr. Speaker, I would like to move approval of the report of this Reference Committee in toto as amended.

[*The motion was duly seconded, was put to a vote, and was carried.*]

XVI—8a. SUPPLEMENTAL REPORT FROM THE REFERENCE COMMITTEE ON HYGIENE AND PUBLIC HEALTH

(Resolution No. 2)

W. J. Zimmerman, M.D.: Mr. Speaker, the Reference Committee on Hygiene and Public Health reconsidered Resolution No. 2, which was referred back to it by the House last night for further study. Since there are extensive changes, I will read the original resolution.

The Reference Committee reconsidered this in accordance with the action of the House of Delegates, first taking into account the amendment proposed by Dr. Stander and passed by the House, to eliminate reference to osteopaths, and secondly incorporating the suggestions offered by Dr. Engelke, and the Reference Committee now submits the following substitute resolution:

Whereas, the health of the youth of the nation is of primary importance to national health and security, and

Whereas, the Michigan State Medical Society, local medical societies, official and private health agencies as well as schools and others, have been closely cooperating for many years in a program designed to enhance the physical fitness of youth, and

Whereas, due emphasis is urgently needed and can be carried out most efficiently at the county society and local levels; therefore, be it

RESOLVED: That the Michigan State Medical Society, as a part of its Presidents Program, contact every county medical society regarding the formation of local youth fitness committees and urge these committees to meet with Parent-Teacher Associations, school officials, athletic directors, and coaches and others, to develop a continuing program of youth fitness worthy of recognition.

Mr. Speaker, I move the adoption of this substitute resolution.

The Speaker: It is moved and seconded that we adopt this substitute resolution.

[*The motion was put to a vote and was carried unanimously.*]

W. J. Zimmerman, M.D.: Mr. Speaker, I move adoption of the supplemental report of the Reference Committee.

[*The motion was duly seconded, was put to a vote and was carried unanimously.*]

THE SPEAKER: We shall now proceed with the elections.

[*The Vice Speaker resumed the Chair.*]

XIX. ELECTIONS

XIX—1. COUNCILOR OF THE FIRST DISTRICT

VICE SPEAKER: Dr. A. E. Schiller, of Detroit, incumbent, has resigned. The First District is invited to place their nominee before the House.

R. R. COOPER, M.D.: Mr. Vice Speaker, it is a great pleasure to place in nomination for Councilor from the First District the name of Dr. William S. Carpenter.

JACK ROM, M.D.: It is my pleasure to second the nomination of Dr. Carpenter.

R. R. COOPER, M.D.: Mr. Vice Speaker, I move that nominations be closed.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

W. B. MCINTYRE, M.D. [Wayne]: I move that a unanimous ballot be cast for Dr. Carpenter.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XIX—2. COUNCILOR OF THE THIRD DISTRICT

THE VICE SPEAKER: In the Third District, to replace Dr. H. J. Meier, of Coldwater, who has resigned.

R. M. LEITCH, M.D. [Branch]: Mr. Vice Speaker, it is with regret that we have had to accept the resignation of our beloved Councilor, Dr. Meier; but we are very proud and fortunate to have a man to replace him whom most of you know. Therefore, I proudly place his name in nomination. Dr. Harvey C. Hansen, of Battle Creek.

C. W. OAKES, M.D. [Huron]: I support that nomination.

K. S. WEMMER, M.D. [Calhoun]: It is with pleasure that I second the nomination of Dr. Harvey C. Hansen for Councilor of the Third District.

S. ALBERT FIEGEL, M.D. [St. Joseph]: Mr. Vice Speaker, I move that nominations be closed and that the Secretary cast the unanimous ballot in favor of Dr. Hansen.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XIX—3. COUNCILOR OF THE FOURTH DISTRICT

THE VICE SPEAKER: Dr. W. A. Scott of Kalamazoo is the incumbent. Nominations are in order.

N. J. HERSHEY, M.D. [Berrien]: Mr. Vice Speaker, at the request of the delegates of the Fourth Councilor District it is my distinct pleasure to nominate the incumbent, William S. Scott, as Councilor of the Fourth District.

F. C. RYAN, M.D. [Kalamazoo]: I second the nomination of Dr. Scott and move that we close nominations and instruct the Secretary to cast the unanimous ballot for Dr. Scott.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XIX—4. COUNCILOR OF THE FIFTH DISTRICT

THE VICE SPEAKER: In the Fifth District, Dr. C. Allen Payne, of Grand Rapids, is the incumbent. Nominations are open from the floor.

J. A. FERGUSON, M.D.: Mr. Vice Speaker, it is my privilege to nominate Dr. C. Allen Payne to succeed himself as Councilor of the Fifth District.

THE VICE SPEAKER: Are there other nominations?

R. E. RICE, M.D. [Ionia-Montcalm]: We have enjoyed his services, and I would like to support his nomination.

I move that nominations cease and the Secretary be instructed to cast the unanimous ballot for Dr. Payne.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

THE VICE SPEAKER: Dr. Payne is re-elected as Councilor of the Fifth District.

XIX—5. COUNCILOR OF THE SIXTH DISTRICT

THE VICE SPEAKER: The incumbent is Dr. H. H. Hiscock of Flint.

C. W. COLWELL, M.D.: At a meeting of all the delegates from the Sixth District I was instructed to submit the name of the incumbent, who has done a wonderful job as far as representing his components in this District is concerned. I nominate Dr. H. H. Hiscock to succeed himself.

W. F. BUCHANAN, M.D.: I would like to second the nomination of Dr. Harold Hiscock and state that he has represented our policies and feelings in Genesee County.

I move that nominations be closed and that the Secretary be instructed to cast the unanimous ballot for Dr. Hiscock.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XIX—6. COUNCILOR OF THE THIRTEENTH DISTRICT

THE VICE SPEAKER: The incumbent is Dr. Wickliffe.

J. R. HEIDENREICH, M.D. [Menominee]: We regret that Dr. Wickliffe is leaving us. We want to thank him for his long service, and hope he has a lot of pleasure in his leisure.

To fill the vacancy, we have duly caucussed and nominate Dr. Donald R. Smith of Iron Mountain.

J. R. FRANCK, JR., M.D. [Gogebic]: I would like to second the nomination of Dr. Smith as Councilor of the Thirteenth District, and move that nominations be closed and the Secretary cast the unanimous ballot for Dr. Smith.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XIX—7. COUNCILOR OF THE FIRST DISTRICT

R. R. COOPER, M.D.: A point of order, Mr. Vice Speaker. In view of the amendment to the Constitution passed tonight on redistricting and reassigning of the way of electing delegates which, according to the Constitution, takes effect immediately upon passage, Wayne County no longer is numbered as having fifty-three delegates and should have one more Councilor. In that case, we are prepared to make a nomination, if this is true.

THE VICE SPEAKER: Make your nomination, Dr. Cooper.

C. I. OWEN, M.D.: For this position, I nominate Dr. Ed Martmer. He is well known by our group and by this Association.

THE VICE SPEAKER: Just a moment. Dr. Cooper, how many delegates do you have?

R. R. COOPER, M.D.: We have fifty-three delegates from Wayne County, Mr. Vice Speaker.

THE VICE SPEAKER: I am not doubting you; I am just making it legal. Your numbers are correct, and I invite your nomination. This is for District No. 19.

VOICE: I arise to a point of order. Is the new Constitution in effect, or does it have to carry over until next year?

THE VICE SPEAKER: It is in effect, Doctor.

Nominations are open. This is for the Nineteenth District; is that correct?

E. J. TALLANT, M.D.: I wish to second the nomination of Dr. Martmer for our new Councilor. He was placed in nomination by Dr. Owen.

I move nominations be closed and the unanimous ballot be cast for him.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

XIX—8. DELEGATES TO THE AMA

THE VICE SPEAKER: The first incumbent is Dr. J. S. DeTar, M. D., of Milan. I have been sent a letter which I regret to have to read, from Dr. DeTar, stating that

he wishes to resign from his present position as delegate to the AMA. Nominations are now open for this position.

D. R. Smith, M.D. [Dickinson-Iron]: I wish to offer the name of Dr. Heidenreich as delegate to the AMA. He is presently an alternate delegate to the AMA and has been a member of this body for some years.

R. R. Cooper, M.D.: I second the nomination.

J. D. Miller, M.D.: I also second it. Dr. Heidenreich has served well and long as representing the Upper Peninsula.

The Vice Speaker: I believe it is customary for us to nominate men for all four positions open and then vote on them.

F. C. Brace, M.D.: Mr. Vice Speaker, as delegate to the AMA I would like to nominate a man who has been President of the Michigan State Medical Society. For many, many years he has been the Treasurer of the State Society, and has held many committee appointments in both the State Society and the AMA. At present he is Chairman of the AMA Committee on Constitution and Bylaws. He has been Chairman of our State delegates to the AMA and has played a large part in the recent reorganization of the AMA.

It gives me great pleasure to place in nomination as a delegate to the AMA the name of Dr. William A. Hyland, of Grand Rapids.

C. I. Owen, M.D.: It is with great pleasure that I second the nomination of Dr. William Hyland. I have served with him for many years. He is one of the finest men to serve under as chairman of the delegates from Michigan.

E. A. Osius, M.D.: I would like to nominate Dr. Luther Leader as delegate to the AMA. We have had a good sample of the way he can work, and I am sure you all know he will represent this Society with honor and distinction.

D. A. Bowman, M.D. [Bay-Arenac-Iosco]: It is my pleasure to place in nomination the name of my friend, Dr. O. J. Johnson, now an incumbent delegate to the AMA, for re-election. He is a man of stature and integrity. He has served his community and County in many ways. He has served as delegate to this House, as Councilor from the Tenth District, as alternate delegate to the AMA, and for the past term has been delegate to the AMA.

I take great pleasure in placing the name of Dr. O. J. Johnson, of Bay City, before you for re-election as delegate.

L. F. Hayes, M.D.: As one of the constituents of Dr. Johnson in the Tenth Councilor District, I am very pleased to second his nomination.

J. D. Miller, M.D.: I second the nomination.

R. E. Rice, M.D.: In an effort to save the time of the tellers, I move that we dispense with a ballot on these nominees.

[*The motion was duly seconded, was put to a vote, and was carried unanimously.*]

The Vice Speaker: We shall now vote a unanimous ballot for these candidates. All in favor, say "aye"; opposed, "no." It is unanimously carried.

XIX—9. ALTERNATE DELEGATES TO THE AMA

The Vice Speaker: The incumbents are: W. W. Babcock, G. B. Saltonstall, J. M. Wellman and B. M. Harris.

Leon Rottenberg, M.D. [Wayne]: It is with great pleasure that I nominate Dr. Sidney Adler as alternate delegate to the AMA.

W. W. Babcock, M.D.: Mr. Speaker, may I have the privilege of the floor? As Councilor, I cannot make a motion or a second, but I wish to support the candidacy of Dr. Adler as alternate delegate.

I was asked to run by the Wayne delegates but I felt that I could not. Dr. Adler will be very able as a replacement, and I think you will be very pleased with the amount of work and earnestness that he puts into this job.

Raymond J. Kokowicz, M.D. [Wayne]: It gives me great pleasure to second the nomination of Dr. Adler.

J. W. Rice, M.D.: Mr. Vice Speaker, I would like to nominate Dr. John M. Wellman, of Lansing, as an alternate delegate.

L. A. Drolett, M.D.: Mr. Vice Speaker, I support the nomination of Dr. Wellman.

R. W. Teed, M.D.: Mr. Vice Speaker, I would like to nominate Dr. Bradley Harris, who has been an alternate delegate for two years and also a Councilor for eleven years.

Gerald Drake, M.D.: I would like to nominate Dr. G. B. Saltonstall, of Charlevoix, senior outstate incumbent. I learned tonight that he has traveled about a quarter of a million miles in the interest of the Michigan State Medical Society. I think he deserves to go to the AMA. [Laughter]

L. F. Hayes, M.D.: I would like to support the nomination of Dr. Saltonstall.

J. D. Miller, M.D.: It is my pleasure and privilege to nominate one of the younger members, well known to the House, from the Fifth District, namely, Dr. Robert E. Rice, of Greenville, who has served on our Credentials Committee for a number of years and has been a delegate to this House for a goodly number of years. I think he would make a fine alternate delegate to the AMA.

J. A. Ferguson, M.D.: It is my pleasure to second the nomination of Dr. Robert Rice, of Greenville.

The Vice Speaker: Vote on ballot No. 3. You will vote for four nominees, in the order of your preference.

The result of the election for alternate delegates: Dr. Saltonstall, 109 votes; Dr. Wellman, 105 votes; Dr. Adler, 93 votes; Dr. Harris, 87 votes; Dr. Rice, 72 votes

The first four are elected as Alternate Delegates to the AMA.

Nominations are now in order for two alternate delegates to fill the unexpired terms of Dr. Heidenreich and Dr. Leader.

J. D. Miller, M.D.: Mr. Speaker, I would like again to place in nomination for alternate delegate the name of Dr. Robert Rice, of Greenville, representing the Ionia-Montcalm Society and the Fifth District. You all know him. He has been on the Credential Committee for a long time. I hope you will give him favorable consideration.

J. A. Ferguson, M.D.: Again I would like to second Dr. Rice's nomination.

A. H. Whittaker, M.D.: Mr. Speaker, I would like to place in nomination for the second unexpired term the name of Dr. Clarence Owen. Since 1931 the House of Delegates of the AMA has looked to our delegate for leadership in many of the socio-economic problem as well as scientific problems that have been presented to the House of Delegates of the AMA. I proposed Dr. Owen's name because of his position as the incoming President after one year, the closeness with which he will be in contact with the problems this Society will be presented during the coming year, and I think for our own benefit this disposition will make him unusually valuable to this Society.

Therefore, I place his name in nomination.

W. J. Yott, M.D.: It gives me pleasure to second the nomination of Dr. Clarence I. Owen.

L. F. Hayes, M.D.: Mr. Speaker, I move that nominations be closed and the unanimous ballot be cast if it does not interfere with the order of seating.

[*The motion was duly seconded.*]

The Speaker: These nominations are to fill unexpired terms.

Secretary Wiley: Would it be necessary to designate the unexpired terms, inasmuch as the individuals whose vacancies they will be filling will be numbered according to votes?

THE SPEAKER: Is it proper that Dr. Owen replace Dr. Leader and that Dr. Rice replace Dr. Heidenreich?

A. H. WHITTAKER, M.D.: That meets with our approval.

THE SPEAKER: Then I shall accept a motion that nominations be closed and that the unanimous ballot be cast for these two candidates.

L. F. HAYES, M.D.: I so move.

[The motion was duly seconded, was put to a vote, and was carried unanimously.]

XIX—10. PRESIDENT-ELECT

D. W. McLEAN, M.D.: I am very happy to have the privilege of placing in nomination the name of a very dear friend and colleague who is the unanimous choice of the Wayne delegation for the office of President-elect of the Michigan State Medical Society.

This man has always been willing to serve in whatever capacity he has been called on, and through many years of faithful service he is highly deserving of this honor.

He has served with distinction as President of his County Society, and from 1946 to 1955 he served as alternate delegate. From 1955 to the present time he has served as delegate to the AMA House of Delegates. In these offices he has developed a wisdom and a skill which we are most fortunate in being able to interest in the service of the highest office of this Society.

I take great pleasure in placing in nomination, for the office of President-elect of the Michigan State Medical Society, the name of your friend and mine, Dr. Clarence I. Owen.

J. D. FRYFOGLE, M.D. [Wayne]: I come here not to speak of multiple terms of Board members but of a future term for a President whom we are all going to appreciate. I heartily second the nomination of Clarence Owen.

THE VICE SPEAKER, M.D.: Are there other nominations from the floor?

V. V. BASS, M.D.: It is with the greatest of pleasure that I second Dr. Owen's nomination. His activities in the House, in the AMA and for medicine in its entirety are well known. His many students throughout the state attribute much of their fire to the spark ignited from his torch. His help to me and other neophyte delegates many years ago in the deliberations and machinations and deviations of this House then and now has been most helpful.

It gives me the greatest of pleasure and pride to second the nomination of Clarence I. Owen for President-elect.

R. R. COOPER, M.D.: Mr. Vice Speaker, I move that nominations be closed and the unanimous ballot be cast for Dr. Owen.

[The motion was duly seconded, was put to a vote, and was carried unanimously.]

C. I. OWEN, M.D.: Thank you all for this. I trust you will not be disappointed.

THE VICE SPEAKER: Thank you very much, Dr. Owen. I am certain you can look forward to the support of this body in your deliberations and efforts in the coming years.

XIX—11. SPEAKER OF THE HOUSE OF DELEGATES

P. J. HUBER, M.D. [Wayne]: It gives me great pleasure to place in nomination the name of the man who has done such a noble job keeping us under control during this meeting, Dr. J. J. Lightbody.

W. C. C. COLE, M.D.: It is with great pleasure that I second the nomination.

I move nominations be closed and that the Secretary cast the unanimous ballot for Dr. Lightbody.

[The motion was duly seconded, was put to a vote, and was carried unanimously.]

THE VICE SPEAKER: It is indeed a pleasure, Dr. Lightbody, to announce your unanimous election.

THE SPEAKER: Thank you very much, gentlemen. Why anyone would want this job for more than one year, I will never know, but I like it. Seriously, I do appreciate the honor of being re-elected, and I will give it another twist this year. Thank you.

XIX—12. VICE SPEAKER OF THE HOUSE OF DELEGATES

H. A. SCOVILL, M.D.: It is a pleasure to nominate Dr. Falls of Ann Arbor. I will not go into all his qualifications; you have seen him in action.

R. W. TEED, M.D.: On behalf of the Washtenaw delegation it gives me great pleasure to second the nomination of Dr. Falls.

I move that nominations cease and that the Secretary be instructed to cast the unanimous ballot for Dr. Falls.

[The motion was duly seconded, was put to a vote, and was carried unanimously.]

THE SPEAKER: Congratulations, Dr. Falls.

THE VICE SPEAKER: Thank you very much, gentlemen. I might add that this office has been a pleasure chiefly because I have had a good boss. Jim, on my right, has been a very fine instructor, and I think I have an awful lot yet to learn after some of the slips I have made in this particular session. Probably I shall do a better job next year because of your confidence in me. Thank you again.

XX. ADJOURNMENT

THE SPEAKER: A motion to adjourn is in order.

C. W. OAKES, M.D.: I so move.

[The motion was duly seconded, was put to a vote, and was carried unanimously.]

[The meeting adjourned sine die at 11:30 p.m.]

SITY OF MARYLAND
BALTIMORE

CIRCULATES AFTER APR 11 1962

STACKS

the Journal
MICHIGAN
STATE MEDICAL SOCIETY

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Roster of Committee Personnel, 1961-62

As of February 1, 1962

Committees of the House of Delegates

Committees of the Society

Committees of The Council

(This number is composed of two sections, of which this is Section 2)

Michigan State Medical Society

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1961-1962

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Vice Speaker	HAROLD F. FALLS, M.D.	Ann Arbor

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ORLEN J. JOHNSON, M.D., *Vice Chairman*, Bay City
D. BRUCE WILEY, M.D., *Secretary*, Utica

	District		*Term Expires*
WARREN W. BABCOCK, M.D.	1st.	Detroit	1963
WYMAN C. C. COLE, SR., M.D.	1st.	Detroit	1963
WILLIAM BROMME, M.D.	1st.	Detroit	1964
WM. S. CARPENTER, M.D.	1st.	Detroit	1964
EDGAR E. MARTMER, M.D.	1st.	Grosse Pte.	1964
OLIVER B. McGILLICUDDY, M.D.	2nd.	Lansing	1963
HARVEY C. HANSEN, M.D.	3rd.	Battle Creek	1963
WM. A. SCOTT, M.D.	4th.	Kalamazoo	1964
C. ALLEN PAYNE, M.D.	5th.	Grand Rapids	1964
HAROLD H. HISCOCK, M.D.	6th.	Flint	1964
JOHN J. COURY, M.D.	7th.	Port Huron	1962
EARLE S. OLDHAM, M.D.	8th.	Breckenridge	1962
ROBERT V. DAUGHARTY, M.D.	9th.	Cadillac	1963
ORLEN J. JOHNSON, M.D.	10th.	Bay City	1962
WM. M. LeFEVRE, M.D.	11th.	Muskegon	1963
JAMES R. DEHLIN, M.D.	12th.	Gladstone	1963
D. ROEMER SMITH, M.D.	13th.	Iron Mountain	1963
BRADLEY M. HARRIS, M.D.	14th.	Ypsilanti	1964
ROBERT J. MASON, M.D.	15th.	Birmingham	1963
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JAMES J. LIGHTBODY, M.D.	Speaker	Detroit	
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Chairman
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DELEGATES TO A. M. A.

Delegates

	Term Expires
Wm. Bromme, M.D., Detroit	1962
R. L. Novy, M.D., Detroit	1962
G. W. Slagle, M.D., Battle Creek	1962
J. R. Heidenreich, M.D., Daggett	1963
W. A. Hyland, M.D., *Chairman*, Grand Rapids	1963
O. J. Johnson, M.D., Bay City	1963
L. R. Leader, M.D., Detroit	1963

Alternates

	Term Expires
C. I. Owen, M.D., Detroit	1962
R. E. Rice, M.D., Greenville	1962
D. N. Sweeny, Jr., M.D., Detroit	1962
G. B. Saltonstall, M.D., Charlevoix	1963
J. M. Wellman, M.D., Lansing	1963
Sidney Adler, M.D., Detroit	1963
B. M. Harris, M.D., Ypsilanti	1963

Committees of the House of Delegates — 1961-1962

(Appointed by the Speaker)

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H. W. Harris, M.D...609 N. Washington Ave., Lansing 15
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Committees of the Society—1961-1962

(Appointed by the President)

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H. H. Cummings, M.D.....326 N. Ingalls, Ann Arbor
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J. M. Robb, M.D.....633 David Whitney Bldg., Detroit
G. B. Saltonstall, M.D..... 112 Clinton St., Charlevoix
E. F. Sladek, M.D.....125 E. Front St., Traverse City
G. W. Slagle, M.D.....203 N.E. Capitol, Battle Creek
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Arch Walls, M.D.....17201 W. McNichols, Detroit

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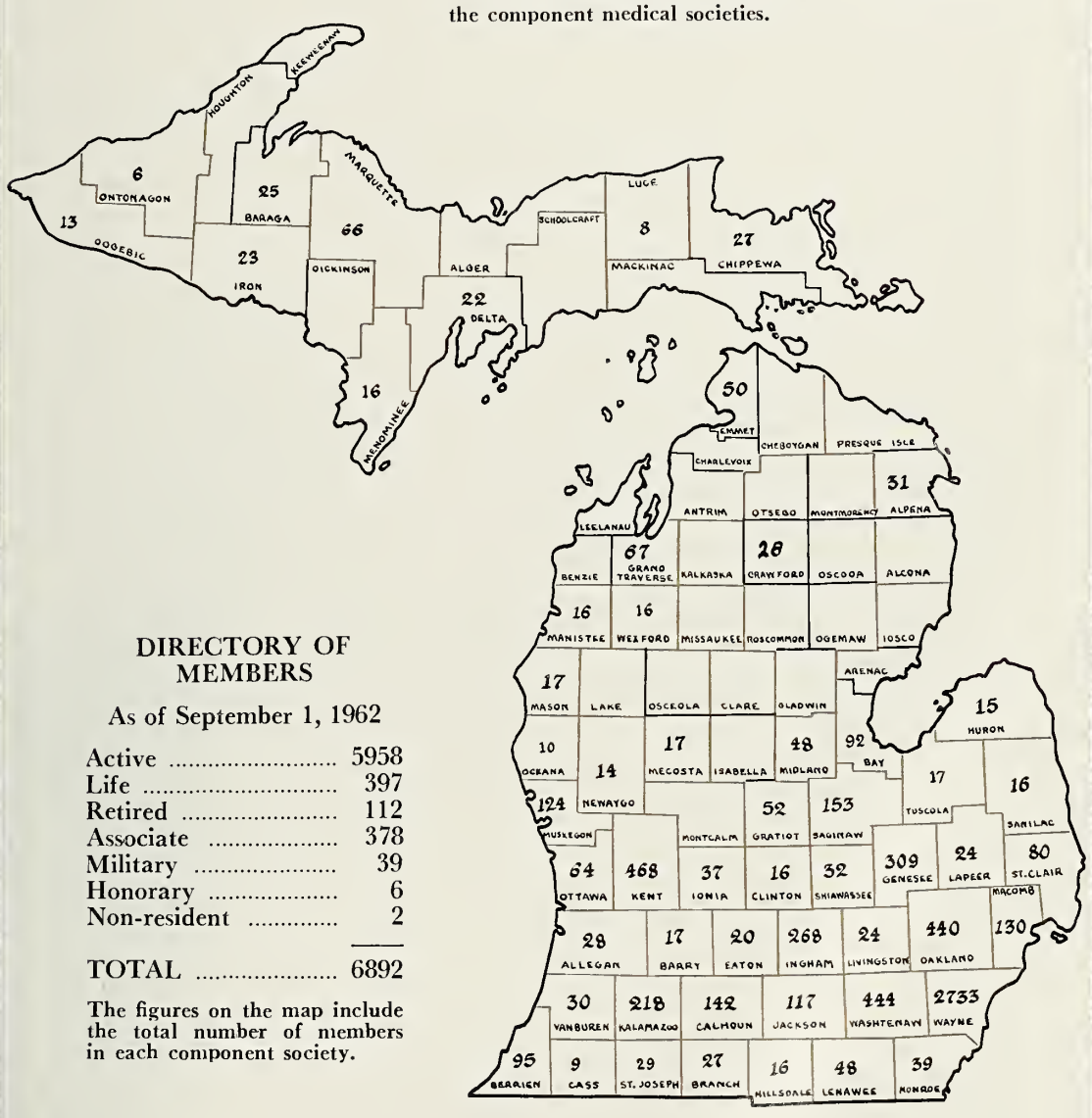
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MICHIGAN
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SEPTEMBER 1962 • VOLUME 61 • NUMBER 9

(This number is composed of two sections, of which this is Section 2)

Directory of Members—1962

The colored lines on the map indicate the boundaries for the component medical societies.



DIRECTORY OF MEMBERS

As of September 1, 1962

Active	5958
Life	397
Retired	112
Associate	378
Military	39
Honorary	6
Non-resident	2
TOTAL	6892

The figures on the map include the total number of members in each component society.

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This MSMS Directory reports the membership of each component medical society. However, all the counties are listed below in an effort to make the Index serve more effectively as a ready reference.

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Guide to Help Locate Cities within the Counties

This guide matches up the counties for all Michigan communities of 1,000 population or more.*

CITY and COUNTY

Adrian (Lenawee)
Albion (Calhoun)
Algonac (St. Clair)
Allegan (Allegan)
Alma (Gratiot)
Almont (Lapeer)
Alpena (Alpena)
Ann Arbor (Washtenaw)

Bad Axe (Huron)
Bangor (Van Buren)
Battle Creek (Calhoun)
Bay City (Bay)
Belding (Ionia)
Belleville (Wayne)
Bellevue (Eaton)
Benton Harbor (Berrien)
Berkley (Oakland)
Berrien Springs (Berrien)
Bessemer (Gogebic)
Big Rapids (Mecosta)
Birmingham (Oakland)
Blissfield (Lenawee)
Bloomfield Hills (Oakland)
Boyne City (Charlevoix)
Brighton (Livingston)
Bronson (Branch)
Brookline (Jackson)
Buchanan (Berrien)

Cadillac (Wexford)
Calumet (Houghton)
Capac (St. Clair)
Carleton (Monroe)
Caro (Tuscola)
Carson City (Montcalm)
Cass City (Tuscola)
Cassopolis (Cass)
Cedar Springs (Kent)
Center Line (Macomb)
Charlevoix (Charlevoix)
Charlotte (Eaton)
Cheboygan (Cheboygan)
Chelsea (Washtenaw)
Chesaning (Saginaw)
Clare (Clare)
Clawson (Oakland)

CITY and COUNTY

Clinton (Lenawee)
Clio (Genesee)
Coldwater (Branch)
Coloma (Berrien)
Colon (St. Joseph)
Constantine (St. Joseph)
Coopersville (Kent)
Corunna (Shiawassee)
Croswell (Sanilac)

Davison (Genesee)
Dearborn (Wayne)
Decatur (Van Buren)
Detroit (Wayne)
Dexter (Washtenaw)
Dowagiac (Cass)
Dundee (Monroe)
Durand (Shiawassee)

East Ann Arbor (Washtenaw)
East Detroit (Macomb)
East Grand Rapids (Kent)
East Jordan (Charlevoix)
East Lansing (Ingham)
East Tawas (Iosco)
Eaton Rapids (Eaton)
Ecorse (Wayne)
Escanaba (Delta)
Essexville (Bay)
Evart (Osceola)

Farmington (Oakland)
Fenton (Genesee)
Ferndale (Oakland)
Flat Rock (Wayne)
Flint (Genesee)
Flushing (Genesee)
Fowlerville (Livingston)
Frankenmuth (Saginaw)
Frankfort (Benzie)
Fraser (Macomb)
Fremont (Newaygo)

Galesburg (Kalamazoo)
Garden City (Wayne)
Gaylord (Otsego)
Gladstone (Delta)

CITY and COUNTY

Gladwin (Gladwin)
Grand Haven (Ottawa)
Grand Ledge (Eaton)
Grand Rapids (Kent)
Grandville (Kent)
Grayling (Crawford)
Greenville (Montcalm)
Grosse Pointe (Wayne)
Grosse Pointe Farms (Wayne)
Grosse Pointe Park (Wayne)
Grosse Pointe Shores (Wayne & Macomb)
Grosse Pointe Woods (Wayne & Macomb)

Hamtramck (Wayne)
Hancock (Houghton)
Harbor Beach (Huron)
Harbor Springs (Emmet)
Hart (Oceana)
Hartford (Van Buren)
Hastings (Barry)
Hazel Park (Oakland)
Highland Park (Wayne)
Hillsdale (Hillsdale)
Holland (Ottawa)
Holly (Oakland)
Homer (Calhoun)
Houghton (Houghton)
Howell (Livingston)
Hubbell (Houghton)
Hudson (Lenawee)
Hudsonville (Ottawa)
Huntington Woods (Oakland)

Imlay City (Lapeer)
Inkster (Wayne)
Ionia (Ionia)
Iron Mountain (Dickinson)
Iron River (Iron)
Ironwood (Gogebic)
Ishpeming (Marquette)
Ithaca (Gratiot)

Jackson (Jackson)
Jonesville (Hillsdale)

*See page 1 for Index by counties.

CITY and COUNTY

Kalamazoo (Kalamazoo)
Kalkaska (Kalkaska)
Kingsford (Dickinson)

Lake Linden (Houghton)
Lake Odessa (Ionia)
Lake Orion (Oakland)
Lakeview (Calhoun)
L'Anse (Baraga)
Lansing (Ingham)
Lapeer (Lapeer)
Laurium (Houghton)
Lawton (Van Buren)
Leslie (Ingham)
Lincoln Park (Wayne)
Livonia (Wayne)
Ludington (Mason)

Mancelona (Antrim)
Manchester (Washtenaw)
Manistee (Manistee)
Manistique (Schoolcraft)
Manton (Wexford)
Marcellus (Cass)
Marine City (St. Clair)
Marlette (Sanilac)
Marquette (Marquette)
Marshall (Calhoun)
Marysville (St. Clair)
Mason (Ingham)
Melvindale (Wayne)
Menominee (Menominee)
Michigan Center (Jackson)
Middleville (Barry)
Midland (Midland)
Milan (Monroe & Washtenaw)
Milford (Oakland)
Millington (Tuscola)
Monroe (Monroe)
Montague (Muskegon)
Morenci (Lenawee)
Mount Clemens (Macomb)
Mount Morris (Genesee)
Mount Pleasant (Isabella)
Munising (Alger)
Muskegon (Muskegon)
Muskegon Heights (Muskegon)

Nashville (Barry)
Negaunee (Marquette)
Newaygo (Newaygo)
New Baltimore (Macomb & St. Clair)
Newberry (Luce)
New Buffalo (Berrien)

CITY and COUNTY

Niles (Berrien)
North Muskegon (Muskegon)
Northville (Wayne & Oakland)
Norway (Dickinson)

Oak Park (Oakland)
Onaway (Presque Isle)
Ontonagon (Ontonagon)
Otsego (Allegan)
Ovid (Clinton)
Owosso (Shiawasee)
Oxford (Oakland)

Painesdale (Houghton)
Parchment (Kalamazoo)
Paw Paw (Van Buren)
Pentwater (Oceana)
Perry (Shiawasee)
Petersburg (Monroe)
Petoskey (Emmet)
Pigeon (Huron)
Pinconning (Bay)
Plainwell (Allegan)
Pleasant Ridge (Oakland)
Plymouth (Wayne)
Pontiac (Oakland)
Port Huron (St. Clair)
Portland (Ionia)

Quincy (Branch)

Reading (Hillsdale)
Reed City (Osceola)
Richmond (Macomb)
River Rouge (Wayne)
Riverview (Wayne)
Rochester (Oakland)
Rockford (Kent)
Rockwood (Wayne)
Rogers City (Presque Isle)
Romeo (Macomb)
Roseville (Macomb)
Royal Oak (Oakland)

Saginaw (Saginaw)
Saint Clair (St. Clair)
Saint Clair Shores (Macomb)
Saint Ignace (Mackinac)
Saint Johns (Clinton)
Saint Joseph (Berrien)
Saint Louis (Gratiot)
Saline (Washtenaw)
Sandusky (Sanilac)
Saugetuck (Allegan)

CITY and COUNTY

Sault Sainte Marie (Chippewa)
Schoolcraft (Kalamazoo)
Scottville (Mason)
Sebewaing (Huron)
Shelby (Oceana)
Southfield (Wayne)
South Haven (Van Buren)
South Lyon (Oakland)
Sparta (Kent)
Spring Lake (Ottawa)
Stambaugh (Iron)
Standish (Arenac)
Stanton (Montcalm)
Stockbridge (Ingham)
Sturgis (St. Joseph)
Sylvan Lake (Oakland)

Tawas City (Iosco)
Tecumseh (Lenawee)
Three Rivers (St. Joseph)
Traverse City (Grand Traverse)
Trenton (Wayne)

Union City (Branch & Calhoun)
Utica (Macomb)

Vandercook Lake (Jackson)
Van Dyke (Macomb)
Vassar (Tuscola)
Vicksburg (Kalamazoo)

Wakefield (Gogebic)
Walled Lake (Oakland)
Warren (Macomb)
Watervliet (Berrien)
Wayland (Allegan)
Wayne (Wayne)
West Branch (Ogenaw)
Whitehall (Muskegon)
White Pigeon (St. Joseph)
Wyandotte (Wayne)
Wyoming (Kent)

Yale (St. Clair)
Ypsilanti (Washtenaw)

Zeeland (Ottawa)

Michigan State Medical Society

Directory of Members, 1962

Listed by Component Medical Societies

(Special Memberships are indicated as follows: "L" for Life Members; "M" for Military Members; "R" for Retired Members; "A" for Associate Members; all others are Active Members.)
Numbers in parentheses indicate County Society Code Numbers used in Alphabetical Roster.

ALLEGAN COUNTY MEDICAL SOCIETY (10)

Brachman, A. Peter, Jr.....222 Trowbridge St., Allegan
Brown, Lewis F.....133 E. Allegan St., Otsego
Chase, Walter E.....137½ N. Main St., Plainwell
Clark, James I. (A).....Box B, Fennville
Dickinson, Clyde A.....Wayland
Dykstra, Jerome H.....103 Sherman, Fennville
Everett, D. W.....Plainwell Sanitarium, Plainwell
Goddard, G. B.....218 E. Orleans, Otsego
Goude, Albert G. (A).....
Hays, James D.....Saugatuck
Johnson, Elwin B.....144 Brady St., Allegan
Johnson, Harrison H. (L).....Wayland
Kaufman, James N.....425 Cutler St., Allegan
Keeler, Van O.....Otsego
Mahan, James E.....402 Trowbridge St., Allegan
Medill, Wilbur C.....139 N. Main St., Plainwell
Miller, Kenneth C.....Saugatuck
Mitchell, Abbott B.....County Health Dept., Allegan
Pone, Janis .....Martin
Proos, Richard A.....304 Dix St., Otsego
Ramseyer, Gladwin E.....125 E. Bridge, Plainwell
Schneiter, Harry E.....425 Cutler St., Allegan
Schock, William H.....315 Maple St., Saugatuck
Topp, Elwin W.....502 N. Main St., Plainwell
Van Der Kolk, Bert.....Hopkins
Vander Voord, Gerald.....312 E. Plum St., Wayland
Vaughan, Willard R.....Plainwell
Wiseman, Bertha A.....Box 177, Allegan

ALPENA-ALCONA-PRESQUE ISLE COUNTY MEDICAL SOCIETY (14)

Arscott, Edward F.....Rogers City
Brown, Donald C.....312 E. Chisholm St., Alpena
Bunting, John W.....110 N. 1st Ave., Alpena
Burkholder, H. J. (L).....122 N. 2nd Ave., Alpena
Cohn, Stuart L.....1253 W. Washington, Alpena
Constantine, Aeneas .....Harrisville
Finch, Donald E.....Onaway
Foley, Arthur L.....Rogers City
Foley, Richard.....Rogers City
Grause, Thomas J.....312 E. Chisholm St., Alpena
Henderson, D. G.....Alpena General Hosp., Alpena
Hier, Edward A.....125 N. 2nd Ave., Alpena
Jackson, Wm. F.....Rogers City
Kessler, Harold.....312 E. Chisholm St., Alpena
Kutsche, W. F.....208 Lake St., Oscoda
Leopard, J. M.....312 E. Chisholm, Alpena
Lipski, John G.....Posen
Nesbitt, Wm. E.....123 N. 2nd Ave., Alpena
O'Dell, F. C., Jr.....110 W. Chisholm St., Alpena
Parmenter, Elbert S.....Box 192, Alpena
Py, Raymond J.....115 N. First St., Alpena
Ramsey, J. Allen.....312 E. Chisholm, Alpena
Ries, Robt. C.....Rogers City
Riker, John L.....303 N. 2nd Ave., Alpena
Rowell, Wilfred J.....Alpena General Hosp., Alpena
Spens, James E.....123 N. 2nd Ave., Alpena
Stump, G. D.....125 N. 2nd Ave., Alpena
Wagoner, Darwin E.....6515 Loud Drive, Oscoda
Watkins, T. M.....312 E. Chisholm St., Alpena
Wienczewski, T. W.....811 Chisholm St., Alpena
Wilson, Chas. S. (L).....730 State Ave., Alpena

BARRY COUNTY MEDICAL SOCIETY (18)

Birk, Wilbur R.....110 W. Center, Hastings
Brown, Jack A.....303 Broadway, Middleville
Castleman, Douglas H.....110 W. Center, Hastings
Finnie, Raymond G.....118 E. Walnut St., Hastings
Gwinn, Alexander B.....102 E. State St., Hastings
Heaslip, Jos. D. (R)..Barry Co. Health Center, Hastings
Hoag, G. David.....303 Broadway, Middleville
Lofdahl, Stewart (R).....N. Main St., Nashville
Logan, Wesley G.....City Bank Bldg., Hastings
Lundeen, John G.....595 Jordon Lake, Lake Odessa
Morrill, Charles E.....400 W. State St., Hastings
Myers, Thos W.....307 N. Main St., Nashville
Noah, Melvin L.....Middleville
Phelps, Everett L.....118 E. Walnut St., Hastings
Pryor, Robt. B.....400 W. State St., Hastings
Tromp, Jack L.....R.D. 3, Lake Odessa
Wedel, Herbert S.....110 W. Center, Hastings

BAY-ARENAC-IOSCO COUNTY MEDICAL SOCIETY (22)

Alcorn, Kent A.....1420 Center Ave., Bay City
Alcorn, Marshall W.....1420 Center Ave., Bay City
Allen, Arthur D.....101 W. John St., Bay City
Asbury, Richard B.....2110 16th St., Bay City
Asline, John N.....207 N. Walnut St., Bay City
Austin, Justus J.....Tawas City
Boatwright, D. C. (A).....4357 Mt. Foster Ave., San Diego 17, Calif.
Bowman, David A.....101 W. John, Bay City
Bozdech, Jiri Josef.....900 N. Jackson, Bay City
Brinkman, Harvey H.....116 W. State St., East Tawas
Brown, Geo. M.....207 N. Walnut St., Bay City
Campbell, Donald A.....1109 N. Johnson, Bay City
Campbell, John S.....1838 McKinley Ave., Bay City
Chapin, Fredk. J.....2121 Center Ave., Bay City
Connelly, C. J.....1104 S. Madison Ave., Bay City
Cook, Hugh K.....101 W. John St., Bay City
Cook, Raymond R.....1115 5th St., Bay City
Cooper, James C. (A).....705 Oak St., Essexville
Cosens, Stanley A.....101 W. John St., Bay City
Crissey, Robt. R.....101 W. John St., Bay City
Criswell, Robt. H.....721 Washington Ave., Bay City
Csonka, Nicholas.....1308 Columbus Ave., Bay City
Dardas, Michael J.....1413 Center Ave., Bay City
DeWaele, Paul L.....1106 N. Johnson St., Bay City
Dolbee, Malcolm K.....Box 518, Standish
Ellison, Alfred, Jr.....101 John St., Bay City
Follis, Wm. M.....101 W. John St., Bay City
Gamble, Wm. G., Jr.....2010 5th Ave., Bay City
Gehman, J. R.....Standish
Geneczko, John T.....1102 Columbus Ave., Bay City
Grigg, John W. (A).....Harper Hospital, Detroit
Hafford, Robert C.....101 W. John St., Bay City
Hagelshaw, Gayland L.....101 W. John St., Bay City
Hess, Chas. L. (R).....110 E. Coronado Rd., Phoenix 4, Ariz.
Heuser, Harold H.....916 Washington Ave., Bay City
Hickner, Lawrence P.....101 W. John St., Bay City
Horowitz, Saml. F.....1415 Center Ave., Bay City
Howland, Walter L.....P.O. Box 633, Pinconning
Huckins, Rodger S.....1802 Broadway, Bay City
Jacoby, Abraham H.....2202 9th St., Bay City
Jacques, J. E.....Tawas City
Jaffe, Martin D.....2110 16th St., Bay City
Jens, Otto F.....1506 Prairie St., Essexville
Johnson, Orlen J.....207 N. Walnut St., Bay City
Jones, M. Culver.....900 N. Jackson, Bay City
Kelly, Larry Stanley.....East Tawas
Kessler, Mana.....311 Center Ave., Bay City
Frux, Sabina Kessler.....311 Center Ave., Bay City
Knobloch, Howard T.....1102 Columbus, Bay City
Kruger, Harold F.....300 N. Henry, Bay City
Kulinski, Eugene J.....601 Ames Ct., Bay City
Langin, John L.....100 15th St., Bay City
MacRae, Leonard D.....813 Sherman St., Bay City
Mayne, John C.....101 W. John St., Bay City
McGee, Harry B.....2110 16th St., Bay City
McGee, Peter L.....Davidson Bldg., Bay City
McSherry, Leo B., Jr.....1102 Columbus Ave., Bay City
Medvezky, Michael J.....1106 S. Madison Ave., Bay City
Miller, Edwin C.....101 W. John St., Bay City
Moeller, Arlyn.....102 Woodside, Essexville
Moore, Allen B.....102 Woodside Ave., Essexville
Moore, Neal R.....704 N. Jackson, Bay City
Mosier, Dwight J.....101 W. John St., Bay City
Nixon, Robert S.....101 W. John St., Bay City
Payea, Norman P.....217 Newman St., East Tawas
Pearson, Stanley M.....101 W. John St., Bay City
Pelczar, Walter E.....321 N. Johnson St., Bay City
Prophater, Robt. C.....202 Boehringer Ct., Bay City
Reddick, C. E.....Court House, Bay City
Rodda, E. H.....101 W. John St., Bay City
Rogers, Charles S.....101 W. John St., Bay City
Rowe, Paul W.....Mercy Hospital, Bay City
Schmelzer, Wm. J...602 Mercer St., P.O. 746, Pinconning
Shafer, Harold C.....101 W. John St., Bay City
Shields, Hubert L.....101 W. John St., Bay City
Staley, Hugh O.....Omer
Standiford, David.....2110 16th St., Bay City
Stankey, Robt. M.....310 Pine St., Essexville
Stroia, Livius N.....101 W. John St., Bay City
Sutton, R. L., Jr.....116 W. State St., East Tawas
Sweet, Irwin.....Gladwin
Taheri, Zia E.....1411 Center Ave., Bay City
Tarter, Clyde S.....1712 Center Ave., Bay City
Tompkins, Dana A.....Pinconning
Treadway, Gaylord.....900 N. Jackson, Bay City
Vail, Harry F.....101 W. John St., Bay City
Wilson, Thos. G. (R).....Venice, Florida
Woodburne, Harris L.....1420 Center St., Bay City
Wright, Thomas B.....101 W. John St., Bay City
Zaremba, Aloysius J. (L).....108 S. Madison Ave., Bay City
Ziliak, Alois L., Jr.....3393 Kiesel Rd., Bay City

BERRIEN COUNTY MEDICAL SOCIETY (26)

Asselin, Dean R.....2817 S. State St., St. Joseph
Atkinson, Robert L.....1626 Langley Ave., St. Joseph
Bailey, John H.....2150 Samuel Ave., Benton Harbor
Beal, Gerald N.....Sheperd Benning Bldg., St. Joseph
Benner, Wm. H.....700 Empire Rd., Benton Harbor
Bieri, Dixon L.....831 Pipestone, Benton Harbor
Bliesmer, August F.....505 Pleasant St., St. Joseph
Brink, John W.....811 Myrtle St., St. Joseph
Bronfenbrenner, Jack.....687 E. Empire Ave., Benton Harbor
Bruni, John R.....1 So. 5th St., Niles
Camp, Donald C.....8 N. St. Joseph Ave., Niles
Cawthorne, Harold J. (R).....R. 4, Box 201, Coloma
Chickering, Wm. A...205 E. Delaware St., Benton Harbor
Cilella, S. G.....Pawating Hospital, Niles
Colligan, Joseph.....North Portage St., Buchanan
Conway, Jos.....Watervliet
Conybeare, Robt. C.....756 Pipestone, Benton Harbor
Cooper, Wm. L.....Rt. 1, Paw Paw Island, Coloma
Crowell, Richard C.....519 Ship St., St. Joseph
Dalgleish, Archie J.....460 N. Main St., Watervliet
Eidson, Hazel D.....Berrien Springs
Elghammer, Richard M...1106 Highland Ave., St. Joseph
Elliott, J. Colin.....802 E. Front St., Buchanan
Emery, Clayton S.....1020 Niles Ave., St. Joseph
Emery, Wm. K.....1020 Niles Ave., St. Joseph
Faber, Michael.....756 Pipestone St., Benton Harbor
Fattic, Grover R., Jr.....Box 427, Niles
Feeley, Marshall J.....2516 Niles Ave., St. Joseph
Feldmann, Robt. J.....Merck, Sharp & Dohme, West Point, Penn.
Friedman, Morris E.....Barton St., New Buffalo
Galles, James O.....275 Paw Paw Ave., Coloma
Garrett, Evan L.....P.O. Box 427, Niles
Gillette, Clarence (L).....RFD 4, M 60 W, Niles
Gould, Samuel.....127 E. Nafier Ave., Benton Harbor
Grayson, Chas. J.....4 Maple St., Three Oaks
Green, Barbara G.....2600 Morton St., St. Joseph

Green, Robt. L.....2600 Morton Ave., St. Joseph
Grundset, Harold M.....Rte. 1, Box 265, Coloma
Gustin, Ralph D.....301 N. Cass St., Berrien Springs
Hassan, D. Kent.....802 E. Front St., Buchanan
Hayes, Thos. P.....2821 State St., St. Joseph
Henderson, Fred C.....703 E. Main, Niles
Hershey, Noel J.....P.O. Box 222, Niles
Hills, David W.....2821 State St., St. Joseph
Holt, Robt. E.....9 S. St. Joseph Ave., Niles
Howard, Frank W.....756 Pipestone, Benton Harbor
Hudnutt, Dean.....811 Myrtle St., St. Joseph
Huff, Harold D.....126 Main St., Niles
Irgens, Edwin R.....11 Peoples St. Bk. Bldg., St. Joseph
Johnston, Wm. H.....2522 Niles Ave., St. Joseph
Keegstra, E. N.....987 Ogard, Benton Harbor
Kelsall, Harvey I.....1600 Niles Ave., St. Joseph
Kenfield, W. J.....505 Pleasant St., St. Joseph
Kennedy, F. Alan.....239 Pipestone, Benton Harbor
King, Frank A., Jr.....169 Michigan St., Benton Harbor
Klos, Henry J.....2700 Highland Ct., St. Joseph
Landgraf, Robt. L.....P.O. Box 222, Niles
Leva, John B.....1122 Salem Ave., Benton Harbor
Lindenfeld, Fredk. H.....8 N. St. Joseph Ave., Niles
Lininger, Richard E.....2712 Highland Ct., St. Joseph
Manning, John T.....1150 Miami Rd., Benton Harbor
May, A. J.....2821 State St., St. Joseph
McLelland, J. T.....Mercy Hosp., X-Ray Dept., Benton Harbor
McNabb, Arthur A.....469 Main St., Watervliet
Mesirow, Stanley M.....687 E. Empire Ave., Benton Harbor
Miller, Edward A. (R)..420 Kimmel St., Berrien Springs
Moore, T. Scott.....P.O. Box 416, Niles
O'Toole, John.....239 Pipestone, Benton Harbor
Ozeran, Chas. J.....127 E. Napier, Benton Harbor
Padelford, Wm. J.....South Lyon
Peshka, David K.....P.O. Box 427, Niles
Polansky, Sanford.....84 W. Main St., Benton Harbor
Porter, Chas. B.....1589 Colfax Ave., Benton Harbor
Pritchard, Harold M.....502 Broadway, Niles
Rague, Paul O.....960 Agard, Benton Harbor
Rambo, Joseph J.....505 Lake St., Bridgman
Ray, Dean K.....2522 Niles, St. Joseph
Reagan, Robt. E.....232 Windsor, Benton Harbor
Richmond, Dean M.....314 State St., St. Joseph
Ruth, J. Griswold.....507 Britain Ave., Benton Harbor
Skinner, James W.....460 Ridgeway St., St. Joseph
Smith, W. B.....239 Pipestone St., Benton Harbor
Sowers, Bouton F.....756 Pipestone St., Benton Harbor
Strayer, John W.....P.O. Box 222, Niles
Stulik, Chas. K.....Town Line Rd., P.O. Box 98, Union Pier
Thorup, D. W.....756 Pipestone St., Benton Harbor
Turner, John J.....2817 S. State St., St. Joseph
Urist, Maurice D.....454 Pipestone St., Benton Harbor
Valantiejus, John A.....R.R. 2, Cedar Lane Farm, New Buffalo
Vastine, Russell J.....430 W. Chicago, Buchanan
Watkins, Richard W.....239 Pipestone, Benton Harbor
Westervelt, H. O.....539 Pearl St., Benton Harbor
Wilson, Clinton W.....925 Pipestone St., Benton Harbor
Woodford, Hackley E...191 Michigan St., Benton Harbor
Zick, Luther H.....2522 Niles Ave., St. Joseph

BRANCH COUNTY MEDICAL SOCIETY (30)

Aldrich, Napier S.....162 Marshall St., Coldwater
Bacon, Charles R.....300 E. Chicago St., Coldwater
Bailey, James E., Jr.....300 E. Chicago St., Coldwater
Beck, Perry C.....Box 25, Bronson
Bien, Walter W. J. (L)....65 N. Monroe St., Coldwater
Coates, Carl A.....135 Stringtown, R.F.D. 1, Quincy
Culver, Bert W. (L).....72 Division St., Coldwater
Culver, Dean T.....173 E. Chicago St., Coldwater
Fraser, Robt. J.....22 W. Pearl St., Coldwater
Geib, Ormond D.....State Home Tng. Sch., Coldwater
Gomley, Henry C.....108 E. Chicago St., Bronson
Harris, Donald M.....35 S. Sprague St., Coldwater
Heffelfinger, John C.....292 E. Chicago Ave., Coldwater
Hoeksema, Ronald H.....292 E. Chicago St., Coldwater
Leitch, Robt. M.....401 Ann St., Union City
Meier, Harold J.....87 W. Pearl St., Coldwater
Mooi, Henry R.....292 E. Chicago St., Coldwater
Moss, Harvey L.....47 Carlyle, Coldwater
Nettleman, Wm. E.....136 E. Pearl St., Coldwater
Olmsted, Kenneth L.....675 Monroe, Coldwater
Rennell, Edwin J.....Coldwater State Home, Coldwater
Rick, John J.....61 E. Chicago St., Coldwater
Southworth, Robt. (A)....University Hospital, Ann Arbor
Thomas, James A.....390 E. Chicago St., Coldwater
Walton, Nathaniel J.....Quincy
Weidner, Harold R.....50 Division St., Coldwater
Wise, Robert.....State Hm. & Trng. School, Coldwater

CALHOUN COUNTY MEDICAL SOCIETY (34)

Albright, Arnold A.....401 Security Tower, Battle Creek
Allen, R. H.....191 College, Battle Creek
Amos, Norman H.....1708 Wolverine Tower, Battle Creek
Amos, Norman O.....1708 Wolverine Tower, Battle Creek
Anderson, Harold E.....65 W. Michigan Ave., Battle Creek
Arnold, George K. (A).....VA Hospital, Ft. Custer
Bakken, Richard L.....200 College St., Battle Creek
Barden, Stuart P.....Leila Hosp., Battle Creek
Baribeau, Roy H. (L).....65 W. Michigan Ave., Battle Creek
Becker, Harry F. (L).....Box 547, Battle Creek
Berghorst, John (A).....VA Hospital, Battle Creek
Bodine, Harold R.....1 W. Michigan Ave., Battle Creek
Bonifer, Philip P.....231 North Ave., Battle Creek
Boswell, David E.....105 Jefferson Ave, Marshall
Brainard, C. W.....148 Wah Wah Tay See Wa, Y Battle Creek
Braverman, A. H. (A).....VA Hospital, Ft. Custer
Brown, Robt. W.....203 Capital N.E., Battle Creek
Buell, Martin F. (A).....V.A. Hospital, Ft. Custer
Campbell, Alice F.....103 E. Mulberry St., Albion
Campbell, Jack S.....1018 North Ave., Battle Creek
Campbell, Richard J.....140 Capital Ave. N.E., Battle Creek
Capron, M. J., Jr.....806 Security Bk. Bldg., Battle Creek
Caviness, L. Harold....185 N. Washington, Battle Creek
Chandler, Edward M.....411 Mich. Nat. Bk. Bldg., Battle Creek
Chynoweth, Wm. R. (L)....207 Post Bldg., Battle Creek
Coakes, Jack E.....112 W. Mansion, Marshall
Colquhoun, Graham F.....25 W. Michigan, Ave., Battle Creek
Cram, Ralph A.....500 S. Ionia St., Albion
Curry, Robt. K.....Homer
Daly, Harold L., Jr.....500 S. Ionia St., Albion
Daly, Mary.....500 S. Ionia St., Albion
Daly, Miriam I.....500 S. Ionia St., Albion
D'Aversa, Generoso.....705 Orchard Dr., Albion
Diamante, Paul J.....70 W. Michigan Ave., Battle Creek
Dickson, Albert R. (L)....250 Champion St., Battle Creek
Dodge, Warren M., Jr.....1207 Wolverine Tower, Battle Creek

Fairbanks, Stephen.....306 S. Superior, Albion
Ferazzi, Patrick S.....1018 North Ave., Battle Creek
Finch, Duward L.....719 Capital Ave. S.W., Battle Creek
Fisher, Robt. E.....1501 W. Michigan Ave., Battle Creek
Fraser, Robt. H. (L).....25 W. Michigan Ave., Battle Creek
Funk, L. D.....Athens
Gething, Jos. W. (L).....538 W. Michigan Ave., Battle Creek
Giddings, A. M. (L)....Battle Creek San., Battle Creek
Gilfillan, Margery J. (L).....125 56th Ave. S., St. Petersburg, Fla.
Girardot, John G.....25 W. Michigan, Battle Creek
Graubner, Franklin L.....Bogan Theatre Bldg., Marshall
Gray, J. Alan....309 Mich. Natl. Bk. Bldg., Battle Creek
Griffith, Jack C.....616 Mich. Nat. Bnk. Bldg., Battle Creek
Hamady, Alfred.....1018 North Ave., Battle Creek
Hansen, Edwin L.....216 North Ave., Battle Creek
Hansen, Harvey C.....65 W. Michigan Ave., Battle Creek
Haughey, Wilfrid (L).....610 Post Bldg., Battle Creek
Henderson, Philip M.....109 W. Erie, Albion
Henriksen, J. D.....236 Beckwith Dr., Battle Creek
Herman, Louis (A)
Hibbs, Donald K.....117 Sunnyside Dr., Battle Creek
Holtom, Benj. G.....815 Security Tower, Battle Creek
Hubly, James W.....25 W. Michigan Ave., Battle Creek
Humphrey, Archie E.....864 E. Michigan St., Marshall
Humphrey, Arthur A.....175 College St., Battle Creek
Humphrey, Herbert E.....122 N. Madison St., Marshall
Jahnig, Richard P. (A).....American Legion Hosp., Battle Creek
Jeffrey, James R. (L).....179 N. Washington Ave., Battle Creek
Jones, Aubrey H. (A).....VA Hospital, Ft. Custer
Jones, Ernest F. (A).....VA Hospital, Battle Creek
Jones, Tyre K.....118 W. Green, Marshall
Kavanagh, Thomas W.....513 Mich. Natl. Bk. Bldg., Battle Creek
Keagle, Leland R. (A).....Rt. 1, Box 392, Augusta
Keeler, Kenneth B. (R).....417 Elizabeth St., Albion
Kelleher, Geo. T.....235 North Ave., Battle Creek
Kimball, Arthur S., Jr.....1150 E. Michigan, Battle Creek
Kinde, Matthew R.....250 Champion, Battle Creek
Kingsley, Paul C.....191 College, Battle Creek
Klopp, Edward J.....173 College St., Battle Creek
Knode, Robert Edwin.....407 Mich. Natl. Bk. Bldg., Battle Creek
La France, N. F. (A).....VA Hospital, Fort Custer
Lam, Francis L.....408 Capital Ave. S.W., Battle Creek
Lancaster, Vance B.....231 North Ave., Battle Creek
Levine S. L. (A).....VA Hospital, Battle Creek
Levy, Elizabeth H. (A).....145 Fuller Rd., Box 42, Battle Creek
Levy, Jos., Jr.....231 North Ave., Battle Creek
Lewis, Welcome B. (L).....196 Irving Park Drive, Battle Creek
Long, Walter B.....Homer
Lowe, Kenneth H.....231 North Ave., Battle Creek
Lowe, Stanley T.....231 North Ave., Battle Creek
Lund, C. A. E.....96 E. Jackson St., Battle Creek
Marino, Salvator G. (A).....VA Hospital, Lebanon, Pa.
McCuaig, Alfred G.....719 Capitol St. S.W., Battle Creek
Melges, Fredk. J.....25 W. Michigan Ave., Battle Creek
Mitton, Orland W. (R).....1408 Arizona N.E., Albuquerque, N. Mex.
Morrison, Donald B.....719 Capital S.W., Battle Creek
Mullenmeister, H. F.....275 Capital N.E., Battle Creek
Mustard, Russell L.....25 W. Michigan Ave., Battle Creek
Norgan, Anne F.....719 Capital Ave. S.W., Battle Creek
Orr, Eli H. (A).....VA Hospital, Battle Creek
Parkinson, Chas. E.....Leila Hospital, Battle Creek
Patrick, Gilbert T.....25 W. Michigan Ave., Battle Creek
Pearson, Donald J.....255 North Ave., Battle Creek
Pier, Clarence T. (A).....VA Hospital, Battle Creek
Powell, C. E.....37 Capital Ave. N.E., Battle Creek
Powell, Donna (A).....VA Hospital, Ft. Custer
Power, John R.....140 Capital Ave. N.E., Battle Creek
Reizner, Bernard Z. (A).....Oaklawn Hospital, Marshall
Richardson, Benson.....Dispensary, Ft. Custer
Robbert, John.....191 College, Battle Creek
Rorich, Wilma C. W. (R).....166 N.E. Capitol, Battle Creek
Rowan, Russell C.....500 S. Ionia St., Albion
Royer, Clark W.....1331 W. Michigan Ave., Battle Creek
Ryan, Chas. J.....Leila Hosp., Battle Creek
Seifert, Charles (A).....Leela Hospital, Battle Creek
Sharp, Ara D. (R).....502 Irwin Ave., Albion
Shellenberger, H. M.....Box 168, Marshall
Shipp, Leland P.....25 W. Michigan Ave., Battle Creek
Sibilsky, A. Clark.....106 Brewer Dr., Battle Creek
Simpson, Robt. S.....700 Capital Ave. S.W., Battle Creek
Slagle, Geo. W.....203 Capital Ave. N.E., Battle Creek
Sleight, James D.....25 W. Michigan Ave., Battle Creek
Spencer, Collis M.....308½ S. Superior St., Albion
Stadle, Wendall H. (R).....607 Jennings Landing, Gougac Lake
Stephenson, C. D.....140 Capital Ave. N.E., Battle Creek
Stiefel, Richard A.....25 W. Michigan Ave., Battle Creek
Strohmenger, Frank J.....500 S. Ionia St., Albion
Taylor, Clifford B.....500 S. Ionia St., Albion
Tazelaar, Myron A.....219 N. Madison St., Marshall
Vander Kamp, Harry (A)....VA Hospital, Battle Creek
Vander Voort, Wm. V. (L).....Rt. 4, Hastings
Verity, Lloyd E.....1002 Securitv Tower, Battle Creek
Vetne, Gunnar.....725 Capitol S.W., Battle Creek
Walker, Chas. S.....709 W. Van Buren St., Battle Creek
Walters, John F.....163 North Ave., Battle Creek
Walters, Wm. D.....175 College St., Battle Creek
Wemmer, Keith S...1472 W. Michigan Ave., Battle Creek
Wencke, Carl G. (L).....1015 Security Tower, Battle Creek
Winslow, Sherwood B.....25 W. Michigan, Battle Creek
Worgess, Duane R.....799 Capital Ave. N.E., Battle Creek
Yannitelli, S. A.....1331 W. Michigan, Battle Creek
Young, John R.....719 Capital Ave. S.W., Battle Creek
Zaplitny, R. B.....163 North Ave., Battle Creek
Zaplitny, Sophia.....34 Ardmoor, Battle Creek
Zheutlin, Bertram.....50 Adams St., Battle Creek
Zindler, Geo. A.....1201 Security Bnk. Bldg., Battle Creek

CASS COUNTY MEDICAL SOCIETY (38)

Adams, Uriah M.....Marcellus
Clary, Rudolph I.....216 S. Front St., Dowagiac
Comstock, L. David, Jr.....417 W. High St., Dowagiac
Hickman, John K.....108 W. Division St., Dowagiac
Loupee, Geo. E.
Loupee, Sherman L. (L).....108 Orchard St., Dowagiac
Nakas, Osvaldes.....R.R. 1, Cassopolis
Pierce, Frank L. (L).....142 Front St., Dowagiac
Pierce, Kenneth C.....414 McPhil St., Dowagiac

CHIPPEWA-MACKINAC COUNTY MEDICAL SOCIETY (42)

Allott, Hugh R.....816 Ashmun St., Sault Ste. Marie
Bandy, Festus C. (R)....2431 Hamlin Lane, Sarasota, Fla.
Blair, H. Milton.....300 Court St., Sault Ste. Marie
Cantwell, Earl K.....300-306 Court St., Sault Ste. Marie
Clausen, Claire H.....300 Court St., Sault Ste. Marie
Finlayson, Donald D.....301 E. Spruce St., Sault Ste. Marie

Gates, Irene.....Cedar Pointe, Mackinac Island
Goldberg, Abraham H.....310 Ashmun St., Sault Ste. Marie
Hagele, Marie A.....126 Park Pl., Sault Ste. Marie
Haines, Ellen R.....Cedar Point, Mackinac Island
Hamel, Herbert E.....St. Ignace
Harrington, Harvey M. (L)....Box 319, Sault Ste. Marie
Howe, Donnell C., Jr.....300 Court St., Sault Ste. Marie
Mackie, Thos. B.....300 Court St., Sault Ste. Marie
McBryde, Lyman M.....416 Ashmun St., Sault Ste. Marie
Mertaugh, Wm. F.....104 W. Spruce St., Sault Ste. Marie
Montgomery, Benj. T...812 Ashmun St., Sault Ste. Marie
Porretta, Anthony C.....139 Arlington St., Sault Ste. Marie
Rhind, Earl S.....Sault Polyclinic, Sault Ste. Marie
Schochet, Sidney S.....Box 100, St. James, Beaver Island,
Scott, Dale.....816 Ashmun St., Sault Ste. Marie
Solomon, Joseph A.....Mackinac Island
Thompson, Chas. F.....Drummond Island
Trapasso, Tony J.....816 Ashmun, Sault Ste. Marie
Venier, Anton G.....816 Ashmun St., Sault Ste. Marie
Wedding, Erling S.....336 Peck St., Sault Ste. Marie
Yale, Ira V. (L).....200 Ashmun St., Sault Ste. Marie

CLINTON COUNTY MEDICAL SOCIETY (46)

Bennett, Geo. W.....203 W. Main St., Elsie
Cook, Bruno C.....Westphalia
Elliott, Bruce R.....Box 369, Ovid
Fillinger, Wells B. (L).....Ovid
Foo, Chas. T. (L).....108 E. McConnell, St. Johns
Grost, James M.....110 Oakland St., St. Johns
Henthorn, Arthur C. (L).....Box 216, St. Johns
Luton, Frank E. (L).....Beaver Island, St. James
McWilliams, Wm. B. (L)....701 S. Swegles St., St. Johns
Russell, Sherwood R.....104 N. Oakland St., St. Johns
Scott, James S.....Dewitt
Sheline, Victor L.....Medical Center, Ithaca
Slagh, Earl M.....Elsie
Smith, Franklin W.....105 S. Ottawa St., St. Johns
Stephenson, Wesley F.....510 E. Walker St., St. Johns
Stoller, Paul F.....St. Johns

DELTA-SCHOOLCRAFT COUNTY MEDICAL SOCIETY (50)

Anderson, Francis C.....218 S. 10th St., Escanaba
Bernier, A. Barroso.....547 Michigan Ave., Manistique
Benson, Gilbert W. (A).....Ludington St., Escanaba
Boyce, Donald H.....1107 Ludington St., Escanaba
Cretens, Mary (A).....Delta Menominee Hth. Dpt., Escanaba
Dehlin, James R.....8 S. 11th St., Gladstone
Fyvie, James H.....202 S. Cedar St., Manistique
Groos, Harold Q.....1015 S. 1st Ave., Escanaba
Groos, Louis P.....1015 S. 1st Ave., Escanaba
Hult, Otto S.....1005 Delta Ave., Gladstone
Jenke, Albert.....Bark River
LeMire, Donald F.....1104 S. First Ave., Escanaba
LeMire, William A.....1106 First Ave. S., Escanaba
Lindquist, Norman L.....205 S. Tenth St., Escanaba
Maniaci, Geo.....8 South 11th St., Gladstone
McInerney, Thos. A.....1221 Ludington St., Escanaba
Miller, Albert H. (L).....904 Wisconsin, Gladstone
Olson, Carl J.....8 S. 11th St., Gladstone
Ryde, Robt. E.....1221 Ludington, Escanaba
Theisen, Nikolaus J.....St. Francis Hospital, Escanaba
Waters, Duane L.....200 S. Cedar St., Manistique
Whipple, Arno.....117 North 22nd St., Escanaba

DICKINSON-IRON COUNTY MEDICAL SOCIETY (54)

Addison, Earl R.....412 Superior Ave., Crystal Falls
Alexander, Wm. H.....411 East C St., Iron Mountain
Anderson, Donald T.....408 Hamilton Ave., Kingsford
Boyce, George H. (L).....First Natl. Bank Bldg., Iron Mountain
Carlson, Ralph E.....500 Stephenson Ave., Iron Mountain
Cecconi, R. D.....Commercial Bank Bldg., Iron Mountain
Cooper, Chas. A.....Box 542, Stambaugh
Gladstone, Wm. R., Jr.....804 Main St., Norway
Hayes, Willard N.....720 N. Main St., Norway
Huron, Willis H.....106 West B St., Iron Mountain
Irvine, Lionel E.....Box 438, Iron River
Jacobs, Donald J.....Ochiette Bldg., Iron Mountain
Kofmehl, Wm. J.....Stambaugh
McEachran, Hugh D.....500 Stephenson Ave., Iron Mountain
Nora, James C.....15 Eighth Ave., Iron River
Palm, E. Theodore.....412 Superior Ave., Crystal Falls
Pieper, Ernest.....Iron Mountain
Retallack, Russell C.....326 W. Genesee St., Iron River
Schmutzler, Walter A.....373 Woodward St., Iron Mountain
Schroeder, John M.....Khoury Bldg., Iron Mountain
Smith, Donald R.....Box 471, Iron Mountain
Steinke, Chas. G.....517 Stephenson Ave., Iron Mountain
Stelle, Robert E.....412 Superior, Crystal Falls

EATON COUNTY MEDICAL SOCIETY (58)

Arner, Fred L. (L).....Bellevue
Brown, Byron P.....339 S. Cochran, Charlotte
Carothers, Danl. J.....315 S. Cochran, Charlotte
DeLand, C. LeRoy.....Olivet
Engle, Paul H. (A).....Olivet
Erhard, O. Stewart.....301 Rancho, Eaton Rapids
Garlock, Fred C.....406 E. Jefferson St., Grand Ledge
Hannah, Harry W.....R.F.D. 3, Charlotte
Harrod, Gordon R.....Grand Ledge
Landick, Robt. E., Jr.....R. 1, Charlotte
Matthews, R. W.....236 S. Main St., Charlotte
Meinke, Albert H., Jr.....702 S. Main, Eaton Rapids
Myers, Albert W.....Potterville
Riley, Jos. L.....201 S. Cochran St., Charlotte
Robinson, S. R.....1140 Willow St., Grand Ledge
Sevener, Lester G.....236 S. Main St., Charlotte
Sherman, Eber B.....210 Broad St., Eaton Rapids
Van Ark, Bert.....123 N. East St., Eaton Rapids
Van Ark, Herman F.....Eaton Rapids
Willits, Clayton O.....127 Upland, Charlotte

GENESEE COUNTY MEDICAL SOCIETY (62)

Adams, Albert C.....G 7194 E. Court St., Davison
Adams, B. R. (A).....1616 Robt. Longway Blvd., Flint
Adams, Burnell H.....609 S. Lynch St., Flint 3
Adams, Chester H.....1114 Beach St., Flint 3
Anderson, Harley H.....11820 N. Saginaw, Mt. Morris
Anderson, John L.....2765 Flushing Rd., Flint 4
Anderson, Robt. E.....420 S. Ballenger Hwy., Flint
Anthony, Geo. E. R.....1015 Detroit St., Flint 4
Baird, W. Claire.....2765 Flushing Rd., Flint
Bald, Fredk. W.....420 S. Ballenger, Flint 3
Barbour, David A.....5369 Briarcrest, Flint
Barbour, Fleming A.....2015 Lincoln Dr., Flint 3
Baske, Franklin W.....923 Maxine St., Flint 3
Basualdo, Carlos A. E. (A).....401 Ballenger Hwy., Flint 2
Batdorf, John W.....1925 Park Forest Dr., Flint
Batdorf, Joseph T.....11325 S. Saginaw, Grand Blanc
Bateman, Lawrence G.....1928 Lewis St., Flint 6
Beck, Douglass R.....1450 Country View Ln., Flint 7
Becker, Eugene B.....2765 Flushing Rd., Flint 4
Benkert, Jack.....6211 Lake Forest Dr., Grand Blanc
Benson, John C.....402 W. 2nd St., Flint 3
Berman, Harry.....3309 Fenton Rd., Flint 7
Bernstein, Eli N.....311 E. Court St., Flint
Best, J. A.....3801 Clio Road, Flint 4
Beyer, Geo. D.....G 3337 W. Vienna, Clio
Bishop, Don L.....2226 Detroit St., Flint 5
Bogart, Leon M. (L).....503 National Bldg., Flint
Bolduc, Gregoire.....7006 Cranwood Dr., Flint
Boles, Wm. P.....714 Beach St., Flint 3
Bosker, Donald.....1620 N. Franklin, Flint 3
Bradley, Robt. M.....1112 Mott Fdn. Bldg., Flint 2
Brain, Roy G.....460 S. Saginaw St., Flint 3
Branch, Hira E.....1014 Woodside Dr., Flint 3
Brasie, Donald R. (R).....310 Josephine St., Flint 4
Briggs, Guy D. (L).....224 E. Court St., Flint 3
Brown, Clarence A.....1601 Woodlawn Pk. Dr., Flint 7
Bryant, Donald R.....621 Mott Fdn. Bldg., Flint
Buchanan, Wm. F.....238 W. Caroline, Fenton
Burkett, Leslie V.....121 E. 7th St., Flint 3
Caster, Elisha W. (L)....24711 Ridgedale St., Oak Park
Chambers, Myrton S.....3402 Westwood Pkwy, Flint 3
Chapin, Maurice H.....8600 S. State St., Millington
Chase, Wm. D.....1318 N. Ballenger Hwy., Flint 4
Clark, Robt. L.....1301 Flushing Rd., Flint 4
Collins, James I.....G 1128 N. Dye Road, Flint
Colwell, Clifford W.....328 S. Saginaw St., Flint 3
Conover, Geo. V.....207 Genesee Bank Bldg., Flint 2
Conover, McClellan B.....724 East St., Flint 3
Conover, Thaddeus S.....714 Liberty St., Flint
Cook, Frank W.....Genesee Bank Bldg., Flint
Cook, Henry (L).....709 Genesee Bank Bldg., Flint 2
Cook, John L.....3942 Western Rd., Flint 7
Cooper, John J.....G 4487 Richfield Rd., Flint
Coriasso, Louis B.....614 Odette, Flint 4
Covert, Floyd L. (L).....116 Lord St., Gaines
Coyne, K. M.....2765 Flushing Rd., Flint
Craig, William G.....G 3176 W. Court St., Flint
Credille, Barney A. (L).....346 S. Saginaw St., Flint 3
Cross, Robert L.....6029 Marja, Flint
Curry, Geo. J. (L).....346 S. Saginaw St., Flint 3
Cutler, G. Campbell.....420 S. Ballenger, Flint 4
Davis, Robt. C.....G 3029 Flushing Rd., Flint 4
Dawson, Ralph E.....111 Med. Arts Bldg., Flint 4
Day, John Murray.....2765 Flushing Rd., Flint 4
Delzingro, Nicholas.....328 Main St., Davison
Dettman, Carlton K.....Nanita Dr., Montrose
Dickstein, Bernard.....605 National Bldg., Flint 3
Dodds, Fredk. E. (L).....1336 Lewis St., Flint 6
Dodds, Max E.....460-464 S. Saginaw St., Flint 3
Dooley, James F.....1609 Brookwood Dr., Flint 3
Dorsey, Philip W.....2765 Flushing Rd., Flint 4
Drewyer, Glenn E.....2001 Colchester, Flint 3
Dwyer, William F.....608 National Building, Flint
Dykewicz, Richard A.....2768 Flushing Rd., Flint 4
Eaton, Wayne L.....633 Mott Fnd. Bldg., Flint
Eichhorn, Ernest M.....2765 Flushing Rd., Flint 4
Eickhorst, Thos. N.....1604 Mott Fnd. Bldg., Flint 2
Elliott, Hardie B.....503 S. Saginaw St., Flint 3
Engelman, Raymond M.....114 Medical Arts Bldg., Flint 4
Ettinger, Ralph D.....111 Walnut St., Fenton
Fan, Q. C. .....2002 E. Court St., Flint
Farah, Ben S.....2765 Flushing Rd., Flint 4
Farhat, Maynard M.....505 W. Court St., Flint
Fee, Manson G.....108 E. Kearsley St., Flint 3
Ferris, James W.....426 N. State St., Davison
Finkelstein, Theo.....1415 Broadway Blvd., Flint 6
Forrer, Graydon R.....112 Medical Arts Bldg., Flint 3
Frame, Hugh F.....Hurley Hospital, Flint
Fuller, Harvey T. (R).....820 Genesee St., Mt. Morris
Gelenger, Stephen M.....2125 Detroit St., Flint 5
Gilbert, David H. (A).....4252 Beecher Rd., Flint
Goering, George R. (L).....519 Dryden Bldg., Flint
Goetz, Margarete M. (A).....420 Genesee Bank Bldg., Flint
Goetz, Rudolph.....1221 Church St., Flint
Golden, Evelyn.....218 E. Court St., Flint
Golden, H. Maxwell.....218 E. Court St., Flint 3
Goodfellow, Benj. T. (L)....141 Davis Lake Rd., Lapeer
Gorne, Saul S.....619 Clifford St., Flint 3
Grady, Donald R.....1515 Woodslee Dr., Flint 3
Griffin, Ernest P., Jr.....1505 Arrow Lane, Flint 7
Grover, Harold F.....601 S. Saginaw St., Flint 3
Guile, Gurdon S.....1621 Dupont St., Flint 4
Gumpper, C. R.....4437 Morrish Rd., Swartz Creek
Gundry, Geo. L. (L).....Grand Blanc
Gutow, Isadore H.....2765 Flushing Rd., Flint 4
Gutow, Julius J.....726 Church St., Flint
Guyon, Jos. F.....302 W. Pierson Rd., Flint 5
Guyon, Mary A. W.....302 W. Pierson Rd., Flint 5
Hackley, Richard D.....3942 Western Rd., Flint
Hague, Robt. F.....210 E. Court St., Flint 3
Hallitt, John Wm.....102 Medical Arts Bldg., Flint
Harper, Robt. H.....713 Thomson St., Flint 3
Harris, Bernard J.....1750 Lynbrook, Flint
Harris, Donald R.....2427 Welch Blvd., Flint
Hauser, Fredk. V.....1015 Mott Fndn. Bldg., Flint 2
Hawkins, James E.....4618 Roberts St., Flint
Heinemann, Herman H.....1809 Greenbriar Lane, Flint 7
Helcher, Phyllis O.....G 5303 Flushing Rd., Flushing
Hennessy, Charles R.....517 Mott Fndn. Bldg., Flint
Hing, N. Wm. (A).....326 Stockdale St., Flint 5
Hiscock, Harold H.....503 S. Saginaw St., Flint 3
Hockman, Thomas A.....1513 Winona, Flint
House, Robert J.....3133 Mackin Rd., Flint
Hubbard, Wm. B.....1205 Maxine St., Flint 3
Hufton, Wilfrid L.....2765 Flushing Rd., Flint 4
Hunt, Richard J.....6259 Lake Forest Dr., Grand Blanc
Hurd, Clayton E.....205 Lincoln St., Fenton
Irish, Lawrence R.....2733 Crestwood, Flint
Iung, Omero S. (A).....2018 Castle Lane, Flint
Jaarsma, Raymond A.....11528 S. Saginaw, Grand Blanc
James, Robt. E.....1515 W. Atherton, Flint
Johnson, A. H., Jr.....3219 North St., Flint 5
Johnson, Frank D.....653 S. Saginaw St., Flint 3
Johnson, Raymond E.....5173 W. Reid Rd., Swartz Creek
Judd, Alvin E.....1620 N. Franklin, Flint 6
Karr, Paul H. (M).....3416 Lapeer, Flint
Kaufman, Lewis D.....4002 N. Saginaw St., Flint 5
Kelly, James E.....420 S. Ballenger, Flint
Kimbrough, C. B.....1402 S. Saginaw St., Flint 3
Kirsten, Walter T.....332 Bradley, Apt. 162, Flint
Kitto, Harold J.....902 Stockdale, Flint
Kline, O. F.....2765 Flushing Rd., Flint 4
Knapp, Wm. D.....503 S. Saginaw St., Flint 3

Knights, Edwin M., Jr.....Hurley Hosp., Flint
Koop, Chester S.....2503 Detroit St., Flint 5
Kretchmar, Arthur H.....460 S. Saginaw, Flint 10
Kurtz, John J. (L).....601 S. Saginaw St., Flint 3
Laird, James I.....12010 Kipp Rd., Goodrich
Leach, J. Leonidas.....3007 Industrial Ave., Flint
Le Mieux, Leslie L.....701 W. Dayton St., Flint 4
Levine, Mark C.....111 Med. Arts Bldg., Flint
Lewis, Thos. E.....3520 Richfield Rd., Flint 6
Lightfoot, Arthur S.....4500 Detroit St., Flint
Limbach, David R.....900 Begole St., Flint 2
Lindman, Thomas C.....508 Fremont St., Flint
Livesay, Jackson E.....503 S. Saginaw St., Flint 3
Lundeen, Richard M.....3393 Clio, Flint
Lusk, John A.....9233 W. Davison Rd., Davison
Lyttle, Sydney N.....503 S. Saginaw St., Flint 3
MacGregor, Delbert M.....701 W. Dayton St., Flint 4
MacKenzie, J. W., Jr.....4437 Morrish Rd., Swartz Creek
Macksood, Jos. A.....3169 W. Pierson Rd., Flint 4
MacPhail, Albert A.....1819 Park Forest Dr., Flint
Mangelsdorf, C. H.....4122 Brownsell, Flint
Manwaring, John T.....565 Welch Blvd., Flint 3
Markunas, Paul J.....4002 N. Saginaw St., Flint
Martin, James A.....822 S. Leroy, Fenton
Mathias, Berton J.....1301 Flushing Rd., Flint 4
McAlindon, J. D.....1601 Euclid, Flint
McClelland, Junius W.....Buick Motor Div., Flint 7
McGarry, Roy A. (L).....601 S. Saginaw St., Flint 3
McGregor, Allan R.....G 3337 W. Vienna Rd., Clio
McLeod, Kenneth W. A.....2765 Flushing Rd., Flint 4
McMurray, Richard J.....2765 Flushing Rd., Flint 4
McTaggart, David.....312 Patterson Bldg., Flint
Mendes, Peter C. (A).....1604 Robt. Longway Blvd., Flint
Mendrek, H. H.....1634 Mott Fndt. Bldg., Flint 2
Merchun, Frank A. (A).....1359 Sutton, Flint
Michels, Robert M.....409 McKinley Rd., Flushing
Michelson, Richard B.....5001 N. Saginaw St., Flint
Miller, Bryce (R).....605 E. Main St., Flushing
Miller, Loren E.....2645 Corunna Rd., Flint 3
Miltich, Anthony J.....915 S. Grand Traverse, Flint 3
Moeller, Jan C.....1805 Windsor Lane, Flint
Moore, Glenn E.....323 W. Second, Flint 3
Moore, Wesley P. (A).....802 Tilden, Flint 5
Morin, Paul.....1968 Miller Rd., Flint
Morrison, Wm. H.....11610 Hazel St., Grand Blanc
Morrissey, Vaughn H.....101 Stockdale St., Flint 4
Mosier, Edward C.....115 Lake St., Otisville
Murphy, E. Grant.....1825 Chelsea Circle, Flint 3
Newman, Harry S.....218 E. Court St., Flint
Nicholls, Wm. W.....1301 Flushing Rd., Flint 4
Nitz, Donald A.....1515 W. Atherton Rd., Flint
Odle, Ira D. (L).....201 Welch Blvd., Flint 4
Oldt, Mary Ruth.....602 S. Lynch St., Flint 3
Orr, John W. (L).....Orrs Pt. Lk. Fenton, Fenton
Osher, Seymour L.....315 E. Court St., Flint 3
Parliament, Burt A.....314 Ferndale Pl., Flint 3
Pfeifer, Archibald C. (L).....12205 N. Saginaw, Mt. Morris
Phelps, Lynn A.....10122 Janaroy Ct., Goodrich
Pickering, Woodrow H.....1602 Ballenger Hwy., Flint 4
Pike, Wallace W.....7514 Miller Rd., Swartz Creek
Platt, Alice Lee.....1430 Eldorado Dr., Flint
Polich, John J.....2119 Radcliffe, Flint
Portney, Jack E.....428 Stevens St., Flint 3
Pougnet, W. D.....6155 Maple Ridge, Flint
Pratz, Oliver C.....1303 Detroit St., Flint 4
Preston, Otto J.....300 N. Chevrolet Ave., Flint 2
Prior, Richard W.....1266 S. LeRoy, Fenton
Purcell, F. L.....Ternstedt Plant, Flint 5
Quin, John, Jr.....2765 Rushing Rd., Flint 4
Ragan, Russell M.....2768 Flushing Rd., Flint
Rapport, Richard L.....503 S. Saginaw, Flint 3
Rathburn, Robert J.....1501 Flushing Rd., Flint
Rawling, John C.....115 Med. Arts Bldg., Flint 4
Rawlings, J. Mott.....1601 Neome Dr., Flint 3
Reid, John H.....1301 Flushing Rd., Flint 4
Reye, George H.....2765 Flushing Rd., Flint
Rieth, Geo. F.....1406 Davison St., Flint 6
Roberts, Floyd A. (L).....428 Thompson St., Flint
Romanski, Raymond.....Hurley Hospital, Flint
Roth, F. Dale.....1432 Mott Bldg., Flint
Rowe, John B.....653 Saginaw St., Flint 3
Rulney, Max.....2765 Rushing Road, Flint 4
Rundles, Walter Z., Jr.....500 Grand Traverse St., Flint 3
Rundles, Walter Z.....500 Grand Traverse St., Flint 3
Sandberg, Russell G.....2030 Pierce St., Flint 3
Sande, C. W. (A).....Larimore, N. D.
Sandy, Kenneth R.....White Sound Elbow Cay, Abaco Bahamas B.W.I.
Sanocki, Fredk. E.....1651 Detroit St., Flint 3
Saunders, Jack (A).....Apt. A, 4256 Beecher Rd., Flint
Scavarda, Chas. J.....2101 E. Court St., Flint 3
Schaefer, Richard K.....645 N. Adelaide St., Fenton
Schiff, Benton A.....323 W. 2nd St., Flint 3
Schmidlin, Robt. W.....3710 Davison Rd., Flint 6
Schreiber, E. Oskar.....2765 Flushing Road, Flint 4
Schroeder, Paul E.....907 Welch Blvd., Flint 4
Schultz, J. Stanley.....3327 Fleming Rd., Flint 4
Schwartz, John M.....1300 N. Dort Hwy., Flint
Schwarz, Heinz H.....1430 Eldorado, Flint
Scott, Robt. D. (L).....1215 Detroit St., Flint 4
Seven, Phillip G.....2301 Cummings, Flint
Seymour, Geo. D.....G-7237 N. Saginaw, Mt. Morris
Shantz, Leighton O.....1497 Country View Lane, Flint 3
Sheeran, Danl. H.....346 S. Saginaw St., Flint 3
Sherwood, Frederick.....2765 Flushing Rd., Flint 4
Shipman, Chas. W.....Warren State Hospital, Warren, Pa.
Simoni, Lewis E.....3210 S. Dort Hgwy., Flint 7
Sirna, Anthony R.....2709 Thomas St., Flint 4
Smith, Eugene C.....503 S. Saginaw St., Flint 3
Smith, Harold O.....1952 Miller Rd., Flint 3
Smith, Maurice J.....2801 N. Saginaw St., Flint 5
Smith, Sidney E.....608 National Bldg., Flint
Sniderman, Benj. F.....727 Beach St., Flint 3
Snyder, Chas. E.....Swartz Creek
Solik, A. E. (M).....311 E. Court St., Flint
Sorkin, Morris L.....718 Beach St., Flint 2
Sorkin, Saml. S.....718 Beach St., Flint 2
Sparks, Harvey V.....2765 Flushing Rd., Flint 4
Steffe, Ralph S.....2765 Flushing Rd., Flint 4
Steinman, Floyd H.....503 S. Saginaw St., Flint 2
Stevens, Philip K.....1116 Mott Fdtn. Bldg., Flint
Stevenson, Wm. W.....108 E. Kearsley St., Flint 3
Streat, Rudolph W. (L).....218 E. 8th St., Flint 3
Stroup, Clayton K.....2002 E. Court St., Flint 3
Sullivan, M. R.....1510 Forest Hill, Flint
Sutherland, James K.....402 E. 3rd St., Flint 3
Sutton, Geo. D. (L).....303 W. Court St., Flint 3
Tauscher, John W.....1513 E. Court St., Flint
Theuerle, Walter I.....3101 N. Saginaw St., Flint 5
Thompson, Charles A.....4211 Comstock St., Flint 4
Thompson, Jack W.....2702 Flushing Rd., Flint 4
Thoms, Peter S.....1279 W. Coldwater, Flint
Thorburn, Grant (L).....Box 387, Waynesboro, Pa.
Tofteland, Elmer H.....2765 Flushing Rd., Flint 4
Tower, Rita B.....2801 S. Dort Hwy., Flint 7
Turcke, Allen F.....5717 Marja St., Flint 5
Turner, Merald G.....601 S. Saginaw St., Flint 2
Tuuri, Arthur L.....Mott Children Clinic, Flint
Urich, Vernon.....1315 Mott Fndt. Bldg., Flint 2
Van Duyne, Fredk. W.....2849 Miller Rd., Flint
Van Harn, Raymond S.....1651 Detroit St., Flint 5
Varney, Howard L.....724 East St., Flint
Vaughan, Edgar J.....Linden
Vergith, L. William.....2318 Welch Blvd., Flint
Wade, Franklin V.....1121 Mott Fndt. Bldg., Flint
Walcott, Carver G.....201 E. Carolina St., Fenton
Ward, Nell M. (L).....503 S. Saginaw St., Flint 3
Wark, David R. (L).....1315 Detroit St., Flint 4
Weber, Robt. M.....3710 Davison Rd., Flint 6
Webster, Robt. M. (A).....Princeton Hospital, 253 Witherspoon St., Princeton, N. J.
Wentworth, John E.....420 S. Ballenger, Flint 4
Werness, Inga W. (L).....220 East Fourth St., Flint

Wheeler, J. D.....2470 Nolen, Flint
White, Carl H.....106 River St., Fenton
White, Frank T.....5492 Lapeer Rd., Flint
Willard, Robt. H.....718 Beach St., Flint 3
Williams, T. Wendell.....5003 N. Saginaw, Flint
Williams, Wm. S. (L).....5216 S. Genesee, Grand Blac
Willis, Robert E.....6606 N. Saginaw St., Flint
Willoughby, L. L. (L)....1127 S. Water St., Marine City
Wills, Thos. N. (R).....Chicaugoan Lake, Crystal Falls
Winchester, Walter H. (L)....515 Genesee Bank Bldg., Flint
Wolcott, Nan D.....7506 Lapeer Rd., Davison
Woodsides, K. J.....2415 Detroit St., Flint
Wright, Donald R.....326 W. Court St., Flint
Wynia, Robert E. (A)....910 Cottage Grove Ave., Flint
Zeis, Myron G.....718 Beach St., Flint 2

GOGEBIC COUNTY MEDICAL SOCIETY (66)

Albert, Saml. G.....103 Suffolk St., Ironwood
Davidson, Donald L.....200 S. Sophie St., Bessemer
Franck, John R., Jr.....401 Sunday Lake, Wakefield
Gallo, Bela.....Newport Clinic, Ironwood
Gertz, Michael A.....109 E. Aurora St., Ironwood
Gorilla, Allen C.....210 Suffolk St., Ironwood
Harrington, Rex R., Jr.....104 E. Ridge St., Ironwood
Lieberthal, M. J.....P.O. Box 632, Ironwood
Lieberthal, Paul R.....Box 632, Ironwood
Medford, Lester.....306 Sunday Lake St., Wakefield
Murphy, Percy J.....Seaman Bldg., Ironwood
Santini, Florian J.....109 E. Aurora St., Ironwood
Wacek, William H.....809 Sunset Road, Ironwood

GRAND TRAVERSE-LEELANAU-BENZIE COUNTY MEDICAL SOCIETY (70)

Beall, John G.....118 E. Front St., Traverse City
Bolan, Ellis J.....Suttons Bay
Brownson, Kneale M.....116 Cass St., Traverse City
Bushong, Benj. B.....116 Cass St., Traverse City
Cajigas, Tomas R.....J. D. Munson Hospital, Traverse City
Campbell, Thomas D.....Box C, Traverse City
Christie, Joseph.....Northport
Clark, Oswald V.....Ramsdell Rd., Traverse City
Cline, Theodore N.....438 W. Front St., Traverse City
Cline, Warren W.....438 W. Front, Traverse City
Coleman, John F.....10680 Peninsula Dr., Traverse City
Curran, Cyril J.....Box C, Traverse City
Dundon, Arthur F.....Box C, Traverse City
Edmonds, W. T.....Munson Hosp., Traverse City
Ellis, Claude I.....Suttons Bay
Ferguson, John T.....Box C, Traverse City
Fishbeck, Wm. A.....1021 E. 8th St., Traverse City
Goodrich, Dwight (R)....601 W. Front St., Traverse City
Haberlein, Chas. R.....1100 Sixth St., Traverse City
Hall, James W.....1100 Sixth St., Traverse City
Hamilton, Earl E.....530 S. Union St., Traverse City
Herkner, Mildred L.....119 Barlow St., Traverse City
Hubbell, Reader J.....228 S. Madison, Traverse City
Huene, Nevin.....110 E. Front St., Traverse City
Huston, R. R.....Elk Rapids
Kamp, Robt. L.....Beulah
Kitti, Wm. W.....Kalkaska
Lemen, Charles E.....110 S. Madison, Traverse City
Lieding, Keith G.....7844 Peninsula Dr., Traverse City
Lossman, Robt. T.....J. Decker Munson Hosp., Traverse City
Magill, Arthur L.....11766 W. Bay Shore Dr., Traverse City
McClay, Adam C.....6330 Pen Dr., Traverse City
McKenney, J. Paul.....721 Sixth St., Traverse City
Michael, Stanley L.....876 E. Front St., Traverse City
Milliken, John G.....224 Circle Dr., Traverse City
Nickels, Mervyn M.....Box C, Traverse City
Norconk, Alonzo A.....Empire
Peterson, Wm. D.....876 E. Front St., Traverse City
Pike, Donald G. (A).....1705 East West Hiway, Silver Springs, Md.
Power, Frank H.....116 Cass St., Traverse City
Ramzy, Carl O., Jr.....Box C, Traverse City
Salon, Dayton D.....108 E. Front St., Traverse City
Schroeder, Dwight M.....Northport
Sheffer, Marcus B. (A).....228 West, Brighton
Sladek, Edward F.....123 E. Front St., Traverse City
Sommerness, M. Duane.....Box C, Traverse City
Sorum, F. T.....Box C, Traverse City
Spencer, John R.....1124 E. Front St., Traverse City
Steffey, Jos. C.....116 Cass St., Traverse City
Stokes, G. Edward.....1100 Sixth St., Traverse City
Swartz, Fred G.....612 Sixth St., Traverse City
Sweeney, Bernard J.....1100 Sixth St., Traverse City
Thacker, Fredk. R.....Front St., Frankfort
Thirlby, Edwin L. (L).....116 Cass St., Traverse City
Thirlby, Richard L.....228 S. Madison, Traverse City
Trautman, Fredk. D.....Frankfort
Wagener, Creighton A.....1100 Sixth St., Traverse City
Weih, Jack E.....118 E. Front St., Traverse City
Weitz, Harry L.....Munson Hosp., Traverse City
Wilcox, Paul H.....333 Sixth St., Traverse City
Wiley, Philip K.....116 Cass St., Traverse City
Williams, Chas. R.....416 Sixth St., Traverse City
Wright, J. K., Jr.....Anderson Bldg., Traverse City
Young, John Harley.....Box C, Traverse City
Young, Lloyd B.....Route 2, Suttons Bay
Zielke, Irwin H.....106 S. Madison, Traverse City
Zimmerman, Jos. G.....102 W. Front St., Traverse City

GRATIOT-ISABELLA-CLARE COUNTY MEDICAL SOCIETY (74)

Aldrich, Alfred L.....Ithaca
Barstow, Donald K.....215 W. Saginaw, St. Louis
Becker, Myron G.....Edmore
Bedo, Andrew V.....802 Gordon, Mt. Pleasant
Bergin, Jos. H.....112 E. Superior, Alma
Brenner, E. J.....Central Mich. Comm. Hosp., Mt. Pleasant
Budge, Melvin J. (L).....1035 Jefferson, Ithaca
Burt, Clarence E.....110 S. Pine River, Ithaca
Burt, Loren G.....510 Prospect St., Alma
Chamberlain, Ray W.....608 E. Chippewa, Mt. Pleasant
Chamichian, Souren L.....117 S. College, Mt. Pleasant
Davis, Lionel L.....314 S. Brown St., Mt. Pleasant
Drake, Wilkie M. (L).....Breckenridge
Dunlop, Donald.....301 East Fourth St., Clare
Gervin, Irfan S.....231 East End St., Alma
Graham, Bernard J.....510 Prospect Ave., Alma
Haddad, T. E.....207 N. Franklin St., Mt. Pleasant
Hammerberg, Kuno.....622 McEwan, Clare
Harrigan, Wm. L.....412 E. Broadway, Mt. Pleasant
Hedges, Frank W.....Post Office, Edmore
Hersee, Wm. E.....306 S. College, Mt. Pleasant

Hobbs, A. Deane (R).....Box 3233 Florence Village, A Station, Winter Haven, Fla.
Hoogerland, C. L.....226 N. State St., Alma
Hyslop, Leland F.....205 S. College Ave., Mt. Pleasant
Johnson, Frank D.....412 E. Broadway St., Mt. Pleasant
Johnson, Philip R.....206 S. College Ave., Mt. Pleasant
Johnson, Robert B.....120 S. St. Johns St., Ithaca
Juhnke, LeRoy W.....314 S. Brown St., Mt. Pleasant
Linn, Michael R.....215 W. Saginaw Ave., St. Louis
Lusis, Alexsandrs.....St. Home & Tr. Schools, Mt. Pleasant
McArthur, Stewart C.....104 W. 6th St., Clare
McCoy, F. E.....611 S. Kinney St., Mt. Pleasant
Oldham, Earle S.....Breckenridge
Pease, Horace B.....Health Unit, CMU, Mt. Pleasant
Ringer, Paul H., Jr.....314 S. Brown St., Mt. Pleasant
Rottschaefer, John L.....3580 Northlawn Pk., Alma
Sanders, Jack F.....Mich. Masonic Home, Alma
Scott, Lincoln B., Jr.....417 S. College, Mt. Pleasant
Silvert, Pasche P.....Vestaburg
Smith, Dennis V.....Box 99, Farwell
Soriano, D. A.....218 W. High St., Mt. Pleasant
Stackhouse, Keith.....510 Prospect St., Alma
Veldhuis, Andrew H.....801 Gordon Rd., Mt. Pleasant
Von Lackum, L. F.....535 Prospect Blvd., Waterloo, Iowa
Waggoner, Richard L.....120 N. Center St., St. Louis
Wallman, C. Harry.....901 State St., Alma
Wickert, Leo R.....1001 Watson Rd., Mt. Pleasant
Wilcox, Rex A.....525 State St., Alma
Wilson, Earl C.....Harrison
Wolfe, Kenneth P.....510 Prospect Ave., Alma
Wood, Cornelius B.....207 N. Franklin St., Mt. Pleasant
Wood, John M.....1300 S. Watson Rd., Mt. Pleasant

HILLSDALE COUNTY MEDICAL SOCIETY (78)

Bates, Morton P.....110 S. Manning, Hillsdale
Davis, Lloyd A.....Camden
Davis, William B.....40 E. Bacon, Hillsdale
Day, Luther W.....Grosvener Bank Bldg., Jonesville
Hanke, Geo. R. (L).....Osseo
Hodge, Chas L.....Reading
Hughes, Henry F. (L).....Hillsdale P.O., Cambria
MacNeal, John A.....379 S. Broad, Hillsdale
Mattson, H. Frazyer.....32 S. Broad St., Hillsdale
Peterson, Carl A.....32 Broad St., Hillsdale
Reigle, Frederick C.....Litchfield
Sawyer, Walter W.....61 N. Howell St., Hillsdale
Stein, Arthur J.....144 Budlong St., Hillsdale
Strom, Arthur W.....32 S. Broad St., Hillsdale
Trapp, Donald G.....32 S. Broad St., Hillsdale
Wiggins, Ira W.....Jonesville

HOUGHTON-BARAGA-KEWEENAW COUNTY MEDICAL SOCIETY (82)

Albright, John G.....220 Iroquois St., Laurium
Aldrich, Addison B.....325 Harris Ave., Hancock
Aldrich, Leonard C.....301 Quincy St., Hancock
Bourland, Lt. Col. P. E. M. (M).....76 E. Monroe St., Chicago 3, Ill.
Hillmer, Raymond E. (L).....Painsdale
Hosking, Fredk. S.....322 Calumet St., Lake Linden
Janis, Anton J.....208 Quincy St., Hancock
Kolb, Fredk. E.....128 Calumet Ave., Calumet
LaBine, Alfred (L).....Masonic Bldg., Houghton
Larson, Forrest W.....322 Shelden, Houghton
Lepisto, Victor E.....238 Quincy St., Hancock
Levin, Simon (L).....1209 College Ave., Houghton
Nolan, Lewis E.....108 Center St., Hancock
Potter, Earl C.....Baraga Co. Mem. Hosp., L'Anse
Repola, Kenneth L.....401 Isle Royale St., Laurium
Roche, Andrew M.....221 5th St., Calumet
Rowe, Kenneth E.....107½ Calumet Ave., Calumet
Sandell, Samuel T.....210 Center St., Hancock
Sloan, Paul S.....609 Sheldon Ave., Houghton
Smith, Chas. R. (R).....E. White St., Hancock
Stallard, Clinton W.....305 Tamarack St., Laurium
Stroube, John A.....522 W. Third, L'Anse
Williams, Marshall S.....St. Josephs Hospital, Hancock
Winkler, Henry J.....Box 461, L'Anse
Wisely, John.....Copper Country San., Hancock

HURON COUNTY MEDICAL SOCIETY (86)

Dixon, Ralph C.....Box 77, Pigeon
Elliott, Chas. S.....Pigeon
Gettel, Roy R.....Bad Axe
Herrington, C. Clark....117 S. Port Crescent, Bad Axe
Herrington, Chas. I.....Bad Axe
Herrington, K. B.....317 Port Crescent, Bad Axe
Herrington, Willet J.....Bad Axe
Oakes, Chas. W., Jr.....Harbor Beach
Scheurer, Clare A.....Pigeon
Sidagis, Joseph.....6 W. Main St., Sebewaing
Sorenson, Maurice G.....P.O. Box, Elkton
Steinhardt, Edward E.....Box 15, Elkton
Turner, Phillip R.....321 S. Fourth St., Harbor Beach
Wible, Chas. F., Jr.....Sebewaing
Willits, Robert A.....193 N. Main St., Elkton

INGHAM COUNTY MEDICAL SOCIETY (90)

Agate, Geo. H.....Mich. Dept. of Health, Lansing 4
Aiken, Donald J.....Grandview & Grand Rv., Okemos
Alexander, Reuben G.....301 Seymour Ave., Lansing 15
Allen, Robert E., Jr. (A).....Sparrow Hospital, Lansing
Altland, J. K.....Route 3, Box 178, Lansing
Altman, Harold (A).....124 N. Magnolia Ave., Lansing 12
Asselin, David C.....914 Prudden Bldg., Lansing
Badgley, Waldo O.....M. O. Box 756, Lansing 6
Baker, Thos. C.....624 N. Capitol Ave., Lansing
Bassett, Robt. C.....603 S. Capitol Ave., Lansing
Bates, Richard.....2909 E. Grand River, Lansing
Bauer, Theodore I.....810 Mich. Nat. Tower, Lansing
Behen, Wm. C. (L).....535 S. Capitol Ave., Lansing 33
Behney, Charles A.....Mich. Dept. of Health, Lansing
Bellinger, Ernest G. (L).....Masonic Home, Alma
Berden, Eleanor A.....2630 Libbie Drive, Lansing 17
Berens, Burdette M.....110 N. Rosemary St., Lansing 17
Berge, Richard E. (A).....809 S. Marshfield Ave., Chicago 12, Ill.
Bergeon, Milton C.....302 S. Steele St., Mason
Bevez, Frank L.....3209 S. Cambridge Rd., Lansing

Bingham, B. Wayne.....1034 E. Saginaw, Lansing 6
Black, Chas. E.....112 W. Allegan, Lansing
Black, Gertrude C. K.....529 W. Grand River, Williamston
Blair, Thomas C.....215 N. Walnut St., Lansing
Bleil, Eugene E.....408 N. Capitol Ave., Lansing
Boylan, Rowan C.....Sparrow Hospital, Lansing
Bradford, Carl W.....301 Seymour, Lansing
Breakey, Robt. S. (R)....520 Westmoreland, Lansing 15
Briggs, James.....2132 N. Cedar St., Holt
Brown, Fredk. W., Jr.....831 N. Washington Ave., Lansing
Brown, Joseph C.....790 E. Columbia, Mason
Brubaker, Earl W.....103 N. Washington Ave., Lansing 16
Bruegel, Oscar H. (L).....204 Birchwood Dr., Traverse City
Burhans, Robt. A.....810 Mich. Natl. Tower, Lansing
Burt, Emma G.....General Delivery, Agana, Guam

Cairns, Donald A.....136 W. Ash St., Mason
Calomeni, Anthony D.....309 Seymour Ave., Lansing 15
Cameron, Richard R.....Newberry State Hosp., Newberry
Carlson, Ralph G.....3526 W. Saginaw St., Lansing
Carr, Earl I.....1915 Moores River Dr., Lansing 10
Caruso, Joseph A.....2909 E. Grand River, Lansing
Casey, Byron L.....202 M.A.C., East Lansing
Chaskes, Marian I. G.....606 Townsend St., Lansing 15
Cheney, Wm. D.....Sparrow Hosp. X-Ray, Lansing
Chi, Seong H. (A).....Ingham Medical Hosp., Lansing
Christian, Leo G.....108 E. St. Joseph St., Lansing 15
Cipparone, Joseph R.....St. Lawrence Hosp., Lansing
Clark, Gaius D.....Oldsmobile Div., GMC, Lansing
Clark, Wm. E. (A).....809 E. Ash St., Mason
Clinton, George R.....618 S. Jefferson St., Mason
Combs, Robt. G.....1023 E. Michigan Ave., Lansing 12
Comstock, Howard C.....2909 E. Grand River, Lansing 12
Cook, J. Maxwell.....209 N. Walnut St., Lansing
Cope, Henry E.....Mich. Dept. of Hlth., Lansing 4
Cordes, Jerome F.....2909 E. Grand River, Lansing
Corneliuson, G. B.....Mich. Dept. of Health, Lansing 15
Cowan, John A.....825 Touraine, East Lansing
Crawley, Eugene H.....Mich. Dept. of Health, Lansing
Cummings, Geo. D.....Mich. Dept. of Hlth, Lansing 4

Dale, Edward C.....Health Service MSU, East Lansing
Darling, Lewis H.....115 W. Hillsdale St., Lansing 15
Dawe, C. D.....1515 W. Mt. Hope Ave., Lansing
Denson, Andrew L. (A)....Sparrow Hospital, Lansing
DeVries, Corydon F.....320 Townsend St., Lansing 15
Dexter, M. J.....229 E. Maple, Mason
Drolett, Alfred J. (L)....1018 Prudden Bldg., Lansing 16
Drolett, Donald J.....2909 E. Grand River, Lansing
Drolett, Lawrence A.....3526 W. Saginaw St., Lansing 17
Dunkel, John F.....Edw. W. Sparrow Hosp., Lansing
Dunn, Forest M.....301 Seymour Ave., Lansing 33

Ellis, Bertha W. (R).....Box 216, Port Blakely, Wash.
Ellis, C. Ward (L).....Box 216, Port Blakely, Wash.

Feeney, Kenneth J.....1908 Mich. Natl. Tower, Lansing 15
Ferrari, Fulvio (A).....St. Lawrence Hosp., Lansing
Feurig, James S.....321 Kensington, East Lansing
Finch, Russell L.....420 S. Walnut St., Lansing 33
Folkers, Leonard M.....234 Michigan Ave., East Lansing
Fortino, Silvio P.....2909 E. Grand River, Lansing
Fosget, Wilbur W.....210 E. Hillsdale St., Lansing 33
French, Horace L.....301 Seymour St., Lansing 15
Fryer, Douglas H.....Mich. Dept. of Hlth., Lansing 44

Gage, David P.....1007 Bnk. of Lans. Bldg., Lansing
Garlinghouse, A. John, Jr.....408 N. Capitol Ave., Lansing 33
George, Harry C.....335 Seymour St., Lansing 33
Ghannam, Rasem (A).....326 N. Ingalls, Ann Arbor
Goldner, Roy E.....1318 S. Washington Ave., Lansing 10
Govons, Sidney R.....408 N. Capitol Ave., Lansing 33
Greenway, Wm. E.....4378 W. Delhi St., Holt
Gregory, Ben T.....2909 E. Grand River, Lansing 12
Grey, Anna B.....219 Oakland Dr., East Lansing

Kent, A. Edith Hall.....Box 1167, Lansing

Hames, R. E.....119 E. Grand River Ave., East Lansing
Hanna, Roger J.....2698 Heather Dr., East Lansing
Harrington, Louis E.....125 W. Saginaw St., Lansing
Harris, Herbert W.....609 N. Washington Ave., Lansing 15
Harrison, Wm. H.....834 W. St. Joseph St., Lansing 15
Harrold, Jesse F.....326 W. Ionia, Lansing 33
Hatton, R. L.....4462 Greenwood St., Okemos
Hayes, Robt. E.....1101 S. Washington, Lansing 10
Hayford, Wm. D.....1028 E. Saginaw St., Lansing
Heald, Gordon H.....714 Abbott Road, East Lansing
Heckert, Frank B.....1105 Bank of Lansing Bldg., Lansing 16
Heckert, Jos. K.....1105 Bank of Lansing Bldg., Lansing 16
Heerdt, Mark E. .....810 W. Saginaw, Lansing
Henderson, Norman D.....1017 E. Grand River, East Lansing
Henry, Robt. A.....Ypsilanti State Hosp., Ypsilanti
Hermes, Edgar J.....604 W. Willow St., Lansing
Heustis, Albert E.....410 Cowley, East Lansing
Himmelberger, R. J.....227 West St., Lansing 15
Hiscoe, D. Bonta.....2909 E. Grand River, Lansing
Hoffer, W. E. (L).....331 Shepard St., Lansing
Hogg, Raymond E.....2909 E. Grand River, Lansing
Holland, Chas. F.....810 W. Saginaw, Lansing
Horvath, Francis.....MSU Health Center, East Lansing
Hoyt, John C.....4378 W. Delhi St., Holt
Huggett, Clare C.....122 W. Gd. River Ave., Lansing
Hurth, M. S.....1717 Jerome St., Lansing

Imeson, Elizabeth W.....Mich. Dept. of Health, Lansing
Isbister, J. L.....Dept. Health, DeWitt Rd., Lansing

Jacob, S. Sprigg, III.....201 Ann St., East Lansing
Johnson, David B.....2909 E. Grand River, Lansing
Johnson, Henry T.....P.O. Box 2289, Phoenix, Arizona
Johnson, Kenneth H.....1116 Mich. Nat. Tower, Lansing
Johnson, Reed P.....139 S. 18 Ave., Maywood, Ill.
Johnson, Richard.....2909 E. Grand River, Lansing
Jones, Francis A., Jr. (R).....716 Mich. Natl. Tower, Lansing
June, Robert C.....209 N. Walnut, Lansing 33

Kahn, David.....2909 E. Grand River, Lansing
Kalmbach, Roland E.....301 Seymour Ave., Lansing 15
Katlein, Stanley.....5122 S. Cedar St., Lansing
Kellerman, Howard H.....1665 Woodside Dr., East Lansing
Kelly, William.....Cass Bldg., Lansing
Kent, Herbert K.....M.O. Box 1167, Lansing 13
Kenyon, Fanny H.....624 LaSalle Blvd., Lansing 12
Kinzel, Raymond C.....326 W. Ionia St., Lansing
Klunzinger, W. R.....326 W. Ionia St., Lansing 33
Kozak, Jerome S.....609 N. Washington Ave., Lansing
Kraft, Lester C.....209 S. Main St., Leslie

Lange, Philip F.....1923 S. Cedar St., Lansing 10
Lanting, Helen E. P.....600 Lesher Place, Lansing 15
Larkey, Paul E. (A).....Sparrow Hospital, Lansing
Larson, Homer I.....1236 N. Downer Dr., Lansing
Lauzun, Virginia D.....309 W. Main St., Lansing 15
Le Duc, Don M.....317 W. St. Joseph St., Lansing
Leshock, Jos. C.....2909 E. Grand River, Lansing
Levett, Harry L.....2909 E. Grand River Ave., Lansing
Lewis, Clayton, Jr.....2909 E. Grand River, Lansing
Linnell, Paul C.....1515 W. Mt. Hope Ave., Lansing
Long, Chas. O., Jr.....2909 E. Grand River, Lansing
Lopez, Jose (A).....St. Lawrence Hosp., Lansing
Loree, Maurice C.....120 W. Hillsdale St., Lansing 15
Loughrin, T. D.....335 Seymour, Lansing
Love, James M.....108 E. St. Joseph St., Lansing
Lucas, Thos. A.....426 W. Ottawa St., Lansing 15
Ludlum, Lewis C.....1126 W. Saginaw St., Lansing 15

Malcolm, Henry E.....919 E. Grand River, East Lansing
Mannausa, L. R.....919 E. Grand River Ave. East Lansing
Martin, Wayne O.....4765 Nakoma Dr., Okemo
Marzolf, M. Finette.....300 W. Ottawa, Lansing 3
May, Stephen G.....202 M.A.C. Avenue, East Lansing

McCorvie, C. Ray.....903 E. Grand River Ave., East Lansing
McCorvie, Donald R.....Williamston Med. Bldg., Williamston
McElmurry, Leland R.....209 N. Walnut St., Lansing 15
McFarlane, Donald R.....2024 Cumberland Rd., Lansing
McGillicuddy, O. B.....1816 Mich. Natl. Tower, Lansing
McGillicuddy, R. J.....300 W. Ottawa St., Lansing 15
McNamara, B. Edward....326 Townsend St., Lansing 15
Meade, Wm. H.....1023 E. Michigan, East Lansing
Meinke, Richard K.....215 N. Walnut St., Lansing
Melick, Richard C.....326 W. Ionia, Lansing 33
Mercer, Walter E.....909 Glenhaven, East Lansing
Messenger, A. L.....1009 E. Michigan, Lansing
Miller, J. Thomas.....790 E. Columbia, Mason
Miller, Willard J.....930 N. Washington, Lansing
Monfort, Robt. N. (R).....MSU Health Center, East Lansing
Moore, Charles R.....408 N. Capitol Ave., Lansing
Moore, Donald B.....3032 Vine Street, Lansing
Morrow, Robt. J.....412 N. Capitol, Lansing

Nadeau, John H. (M).....1712 7th St., Menominee
Nakfoor, Eugene C.....2909 E. Grand River, Lansing
Neering, James C.....1210 W. Saginaw, Lansing 15
Neuman, John R.....3526 W. Saginaw, Lansing
Newitt, A. W.....221 W. Washtenaw, Lansing
Nicholas, Mildred V.....5596 Portage Lake Rd., Dexter
Niland, Paul T.....1308 Old Hickory Lane, East Lansing
Nobel, Rudolf E. (A).....1577 Andrea, Ypsilanti

Ochsner, Paul J.....Fisher Body Corp., Lansing 4
Ostrander, L. D., Jr.....2909 E. Grand River, Lansing

Packer, John H.....2909 E. Grand River, Lansing
Paine, Wm. G.....1028 E. Saginaw St., Lansing
Palmer, R. E. (L).....535 S. Capitol Ave., Lansing
Parker, Earl E.....207 E. Bellevue, Leslie
Peets, Ronald.....Gr. River & Grandview, Okemos
Perlman, Jack M. (A).....1503 Gay Lane, Lansing 12
Philips, David P.....1217 Loraine Ave., Lansing 10
Plesscher, Wm. H.....716 Mich. Natl. Tower, Lansing
Poweroy, Richard W.....609 N. Washington, Lansing 33
Prall, Harry J.....214 W. Main St., Lansing 33
Pung, Elba Molina....1512 E. Michigan Ave., Lansing 12

Randall, O. M. (R)....7557 W. Saginaw, R.R. 1, Lansing
Rector, Frank L. (R).....2835 N.E. Brazee Court, Portland 12, Ore.
Reid, Harold E.....359 University Dr., East Lansing
Reynolds, Edward E.....Rt. 2, Box 18, Williamston
Richards. Frank D.....1028 E. Saginaw St., Lansing
Richardson, Maurice L.....1215 E. Michigan Ave., Lansing 12
Robson, Edmund J.....215 N. Walnut St., Lansing 15
Rollstin, Robt. A.....1014 Townsend St., Lansing 21
Rozan, Josef S.....2909 E. Grand River, Lansing
Ruhmkorff, Ralph H.....MSU Health Center, East Lansing
Rutledge, Saml. H., Jr.....110 W. Hillsdale St., Lansing 33

Saenz, Hugo R.....1515 W. Mt. Hope, Lansing
Sander, John F.....4780 Okemos Rd., Okemos
Saunders, M. R. (A).....Homer G. Phillips Hosp., St. Louis, Missouri
Scallin, J. F.....810 W. Saginaw, Lansing
Scheidt, R. Rudolph.....1133 Seymour Ave., Lansing
Schmidt, Harry J.....2909 E. Grand River, Lansing
Schultz, Arthur E.....4646 Ottawa Dr., Okemos
Seger, Fred L. (L).....1035 Cherry St. N.E., St. Petersburg 4, Fla.
Shapiro, Hyman D.....201 W. Hillsdale St., Lansing
Sharp, Mahlon S.....521 N. Capitol, Lansing
Shaw, Milton.....320 Townsend St., Lansing 13
Sherman, Geo. A.....112 W. Hillsdale, Lansing 15
Sichler, Harper G.....301 Seymour Ave., Lansing 15
Siegel, David.....2909 E. Grand River, Lansing
Silverman, Irving E.....2909 E. Grand River, Lansing
Sircar, Amita Kumar (A).....Ingham Chest Hosp., Lansing
Sleight, Justin L.....2909 E. Grand River, Lansing
Smith, Anthony V.....116 W. Sycamore, Mason
Smookler, Bernard H.....2909 E. Grand River, Lansing
Snyder, Le Moyne.....P.O. Box 1125, Paradise, Calif.
Snyder, Ruth C. E.....234 W. Michigan Ave., East Lansing
Spagnuolo, Alfred J.....1418 S. Logan St., Lansing
Spencer, J. Clyde.....820 Knoll Rd., East Lansing
Spencer, Perry C.....320 Townsend St., Lansing 15
Stanley, Arthur L.....401 W. Greenlawn, Lansing
Stehman, Vernon A.....Lewis Cass Bldg., Lansing
Steiner, Abraham A. (R).....Route 3, Grand Ledge
Stephan, Winton E.....301 Seymour, Lansing
Stilwill, Geo. D.....2909 E. Grand River, Lansing
Stimson, Paul R.....Box 412, R. 4, Lansing
Stone, Benj. J.....2909 E. Grand River, Lansing
Stow, Robt. M.....2909 E. Grand River, Lansing
Strauss, Percival C.....3813 W. Willow, Lansing
Stringer, C. J.....201 W. Hillsdale, Lansing
Sundell, Edwin C.....1028 E. Saginaw, Lansing
Swartz, Fredk. C.....720 Seymour St., Lansing

Tamblyn, Fredk. W.....335 Seymour Ave., Lansing 33
Thaden, D. W.....208 M.A.C. Avenue, East Lansing
Thimmig, Robt. F.....326 Townsend St., Lansing
Tien, Hsin Chen.....124 W. Grand River Ave., East Lansing
Toothaker, Kenneth W.....930 N. Washington Ave., Lansing
Trager, Fredk. C.....933 Northlawn, East Lansing
Trescott, Robt. F.....716 Mich. Natl. Tower, Lansing
Trimby, Robt. H.....122 W. Hillsdale, Lansing
Troost, Franklin L.....4378 W. Delhi Rd., Holt

Urban, Eva.....540 Glenmoor, East Lansing

Vanderzalm, T. P.....1452 Cambridge Rd., Lansing
Venier, Jos. H.....544 Division, E. Lansing

Wadley, Ralph.....335 Seymour Ave., Lansing 33
Wainwright, James W.....720 Seymour St., Lansing
Walker, Leo W.....4225 Apple Tree Lane, Lansing
Wellman, John M.....301 Seymour Ave., Lansing 33
West, Chas. Carl.....2909 E. Grand River, Lansing
Wilensky, Thos.....201 W. Hillsdale, Lansing
Willson, Howard S.....704 Mich. Nat. Tower, Lansing 8
Wolcott, Lester E.....Ingham County Hosp., Okemos
Worthington, Ralph.....810 W. Saginaw, Lansing 15
Wortley, Chas. K.....1017 E. Grand River, E. Lansing

Zick, Gerald A.....122 W. Hillsdale St., Lansing

IONIA-MONTCALM COUNTY MEDICAL SOCIETY (94)

Anderson, D. Hess.....207 Bridge St., Portland
Bennett, W. Bruce.....Lakeview Hospital, Lakeview
Bird, Wm. L.....110 W. Cass St., Greenville
Birzgalis, Alfreds A.....Ionia State Hosp., Ionia
Buck, Jack H.....517 Division, Ionia
Bunce, Earl P. (L).....Trufant
Bunce, Leo W.....Trufant
Campbell, Richard E.....340 E. Main St., Ionia
Dunkin, Lloyd S.....410 S. Clay St., Greenville
Foust, Jos. C. (A).....Kisa Box 73, Tukuyu, Tanganyika, E. Africa
Fox, Harold M.....Portland
Geib, Oscar P. (L).....Gaylord
Glerum, John B.....507 S. Lafayette, Greenville
Halick, John.....200 S. Franklin, Greenville
Hansen, Carl M.....Stanton
Haskell, Robt. H. (L).....
Hoffs, Marinus A.....911 Fourth St., Lake Odessa
House, Glenn W., Jr.....507 S. Lafayette St., Greenville
Kazmers, Nikolas.....Lakeview
Kopchick, Jos.....Muir
Kozachik, Martin J.....123 Bridge St., Portland

Kwast, Harold A. (M).....
Leider, Thos. R.....230½ W. Main St., Ionia
Lilly, Isaac S. (L).....Stanton
Marston, Leo L.....Box 235, Lakeview
Mitchell, Harold C.....509 Johnson St., Ionia
Naglins, Jekabs.....Ionia State Hosp., Ionia
Olsen, Bruce C.....110 W. Cass St., Greenville
Pates, D. C.....Belding
Rice, Robt. E.....P.O. Box 271, Greenville
Robertson, Perry C.....327 Center St., Ionia
Slagh, Milton E.....Saranac
Smith, Robt. O.....724 Roselawn, Ionia
Socha, Edmund S.....217 E. Main, Ionia
Stevens, Charles E.....513 N. Lafayette St., Greenville
Tannheimer, John F.....525 Lafayette St., Ionia
Van Loo, Jacob.....103 E. Washington St., Belding

JACKSON COUNTY MEDICAL SOCIETY (98)

Adams, Ellis W.....517 Wildwood Ave., Jackson
Ahronheim, J. H.....Foote Memorial Hosp., Jackson
Appel, Saul.....112 W. Michigan Ave., Jackson
Baker, Geo. M.....350 S. Union, Parma
Beckwith, Sidney A.....100 E. Main St., Stockbridge
Bentley, Jack P.....2532 Spring Arbor Rd., Jackson
Bentley, Mary E. N.....2532 Spring Arbor Rd., Jackson
Brashares, Zane A.....Brooklyn
Bullen, G. R.....418 Third St., Jackson
Buslepp, Robert C.....435 Wildwood, Jackson
Clarke, Corwin S. (L).....1046 4th St., Jackson
Cooley, Chas. W.....Mercy Hospital, Jackson
Cooley, Randall M. (L).....141 E. Robinson St., Jackson
Corley, Cecil.....204 Homecrest Rd., Jackson
Corley, Ennis H.....3923 Kathmar Dr., Jackson
Corley, Robert W.....204 Homecrest Rd., Jackson
Cox, Ferdinand (L).....1601 4th St., Jackson
Culver, Guy D. L. (R).....P.O. Box 38, Stockbridge
Daly, Byrne M.....709 Oakridge Drive, Jackson
Davenport, Bruce.....404 McNeal St., Jackson
DeMay, Cuthbert E.....403 E. Michigan Ave., Jackson
DeMay, John D.....403 E. Michigan Ave., Jackson
Deming, Richard C.....724 W. Franklin, Jackson
Dengler, Chas. R. (L).....504 3rd St., Jackson
Dickman, Harry M.....104 Oak St., Hudson
Douglas, Edward W. (L).....468 4th Ave., New Kensington, Pa.
Filip, Hypolit K., Jr.....P.O. Box 84, Jackson
Finton, Robt. E.....610 W. Michigan, Jackson
Finton, Walter L. (L).....1502 Carlton Blvd., Jackson
Foust, Wm. L. (R).....219 E. Michigan, Grass Lake
Greenbaum, Harry.....1203 Greenwood Ave., Jackson
Growt, Bowers H. (L).....Addison
Habenicht, Hilda A.....545 Lansing Ave., Jackson
Hackett, Thos. L.....519 N. East Ave., Jackson
Hamilton, James G.....400 S. Grennell, Jackson
Hanft, Cyril F.....144 E. Main St., Springport
Hanson, Victor R.....Chelsea
Hardie, Geo. C.....724 W. Michigan, Jackson
Hicks, Glenn C. (L).....1009 Wildwood Ave., Jackson
Holst, John B.....606 City Bank Bldg., Jackson
Joerin, Wm. A.....612 First St., Jackson
Karr, Jean P.....502 W. Michigan Ave., Jackson
Keefer, Albert H.....Concord
Kempton, Geo. B.....511 S. West Ave., Jackson
Kiessling, A. J., Jr.....511 S. West Ave., Jackson
Kline, Starr L. (L).....3525 Jefferson Rd., Clark Lake
Kobs, Robt. J.....608 W. Michigan Ave., Jackson
Kudner, Donald F.....435 Wildwood Ave., Jackson
Lake, Edward C.....612 First St., Jackson
Landron, Danl.....4633 Page, Michigan Center
Latchaw, William R.....4000 Cooper St., Jackson
Lenz, Chas. R., Jr.....405 First St., Jackson
Lewis, Elmore F.....1112 Carlton Blvd., Jackson
Linden, Victor E.....2025 Fourth St., Jackson
Llinas, Jose J.....1215 First St., Jackson
Ludwick, John E.....237 W. Washington Ave., Jackson
Ludwick, John P.....237 W. Washington Ave., Jackson
Maas, Gerald I.....1615 Carlton Blvd., Jackson
McGarvey, Wm. E. (L)..161 W. Michigan Ave., Jackson
McLaughlin, John M.....710 S. Brown St., Jackson
McLaughlin, Miar J. (L).....710 S. Brown St., Jackson
McLauthlin, H. B.....439 Wildwood Ave., Jackson
McQuillan, F. P.....611 Center St., Jackson
Meads, Jason B.....161 W. Michigan Ave., Jackson
Medlar, Robt. E.....719 Seventeenth St., Jackson
Morelli, Lorenzo .....401 W. Prospect St., Jackson
Muhich, Ralph A.....2532 Spring Arbor Rd., Jackson
Munro, Colin D. (L).....740 W. Michigan, Jackson
Munro, Nathan D.....740 W. Michigan Ave., Jackson
Murphy, Bernard M.....1134 E. Ganson St., Jackson
Newton, Ray E.....180 W. Michigan Ave., Jackson
Niekamp, Harold.....2532 Spring Arbor Rd., Jackson
Oleksy, Stanley P.....744 W. Michigan, Jackson
Olsen, Lloyd L.....610 W. Michigan Ave., Jackson
Oster, Harold L.....1218 Greenwood Ave., Jackson
Otis, Grant L.....525 Wildwood Ave., Jackson
Payne, Andrew K.....Foote Memorial Hosp., Jackson
Phillips, Geo. H.....Jackson Co. TB Sanat., Jackson
Porter, Horace W. (L).....505 Wildwood Ave., Jackson
Pray, Frank F. (L).....310 Steward Ave., Jackson
Pray, Geo. R. (L).....404 S. Jackson St., Jackson
Preston, Joseph A.....Mercy Hospital, Jackson
Rice, John W.....421 McNeal St., Jackson
Ries, Richard G.....612 First St., Jackson
Riley, Philip A.....500 S. Jackson St., Jackson
Riley, Philip A., Jr.....500 S. Jackson St., Jackson
Rua, Ignacio.....1209 Burr St., Jackson
Rucker, Joseph.....1012 Francis St., Jackson
Sargent, Leland E.....Foote Memorial Hosp., Jackson
Sautter, Wm. A.....Horton
Schmidt, Theophile E.....180 W. Michigan Ave., Jackson
Schneider, R. H.....724 W. Franklin, Jackson
Scott, John A., Jr.....432 W. Michigan, Jackson
Shaeffer, Leland D.....1615 Carlton Blvd., Jackson
Sill, Henry W.....724 W. Michigan Ave., Jackson
Sirhal, Alfred M.....Brooklyn
Smith, Dean W.....500 W. Michigan Ave., Jackson
Southwick, W. A.....130 Maple St., Springport
Stackable, Wm. R.....2532 Spring Arbor Rd., Jackson
Stewart, Lewis L., Jr.....308 Edgewood St., Jackson
Stolberg, Carl A.....724 W. Franklin, Jackson
Stone, Ethon L.....721 Seventeenth St., Jackson
Sugar, Saml.....180 W. Michigan Ave., Jackson
Tate, Cecil E.....1315 Francis St., Jackson
Taylor, Ross V.....517 Wildwood Ave., Jackson
Thalner, Leonard F.....609 W. Michigan Ave., Jackson
Thayer, Earl A. (L).....120 W. Michigan Ave., Jackson
Thompson, T. B.....434 Wildwood Ave., Jackson
Townsend, James W.....108 Hague Ave., Vandercook Lake, Jackson
Van Schoick, Frank.....419 W. High St., Jackson
Van Schoick, John D.....Hanover
Van Wagnen, F. I., Jr.....434 Wildwood Ave., Jackson
Vivirski, Edward E.....603 S. Elm Ave., Jackson
Weddon, Edward R.....RFD 2, Stockbridge
Wholihan, John W.....604 W. Michigan Ave., Jackson
Wickham, Woodward A.....2029 Fourth, Jackson
Wille, Warren S.....1204 First St., Jackson

KALAMAZOO ACADEMY OF MEDICINE (102)

Aach, Hugo A.....3314 Bronson Blvd., Kalamazoo 37
Ajemian, Edward P.....252 E. Lovell St., Kalamazoo
Alexander, C. A.....118 W. North St., Kalamazoo
Andrews, Sherman E.....224 E. Cedar St., Kalamazoo 8
Anglin, Walter M.....7211 Lantolarrey Rd., Kalamazoo
Angell, Howard H. (A).....301 Henrietta St., Kalamazoo
Appel, Ben A.....252 E. Lovell St., Kalamazoo
Appel, Wm. P.....252 E. Lovell St., Kalamazoo 8
Appell, Lloyd E.....126 N. Kalamazoo Ave., Vicksburg
Armstrong, Robt. J.....103 N. Burdick St., Kalamazoo 1
Azuela, Victor.....Kalamazoo State Hosp., Kalamazoo

Banner, Lawrence R.....Borgess Med Center, Kalamazoo
Barak, Herbert G.....1631 Gull Road, Kalamazoo
Barrows, Winona M.....1500 Blakslee St., Kalamazoo
Barry, Manley L.....Plainwell Sanatorium, Plainwell
Bateman, William T.....855 Dobbin Dr., Kalamazoo
Bennett, Keith F.....252 E. Lovell St., Kalamazoo
Berglund, Thomas R.....6646 Portage Rd., Kalamazoo
Berglund, V. A.....6646 Portage Rd., Kalamazoo
Berry, Ivor, Jr.....516 Whites Rd., Kalamazoo
Betz, Eldean G.....1711 Merrill, Kalamazoo 6
Birch, Wm. G.....252 E. Lovell Ave., Kalamazoo 5
Bodmer, Harvey C...403 W. Kalamazoo Ave., Kalamazoo
Bond, Glenn C. (A).....301 Montrose, Kalamazoo
Boyd, Robt. E.....302 Bronson Med. Center, Kalamazoo
Breneman, James C.....Galesburg
Brooks, Bert W.....4340 Lakeside Dr., Kalamazoo
Brown, Irmel W.....107 W. Michigan Ave., Kalamazoo
Brue, Peter P.....1009 Cambridge Dr., Kalamazoo
Burrell, Robt. B.....1711 Merrill St., Kalamazoo
Butler, Wm. J.....1631 Gull Rd., Kalamazoo

Caldwell, Clyde T., Ph.D. (A).....2112 Sheffield Dr., Kalamazoo
Callander, C. Glen.....252 E. Lovell St., Kalamazoo
Carter, E. R.....1223 S. Park St., Kalamazoo
Cartland, Geo. F., Ph.D. (A).....1704 Dover Rd., Kalamazoo
Cashen, Russell M.....252 E. Lovell St., Kalamazoo
Chrest, Clarence P.....458 W. South St., Kalamazoo
Clement, F. L.....208 Bronson Med. Center, Kalamazoo
Cobb, Horace R. (L).....3403 Knox St., Kalamazoo
Conrad, Maynard M.....252 E. Lovell St., Kalamazoo
Cooper, Paul F.....4326 Oakland Dr., Kalamazoo
Cornish, F. L., III.....4301 Sunnybrook Dr., Kalamazoo
Cox, Franklin.....Borgess Hospital, Kalamazoo
Crane, Warren B. (R).....Box 758, Nassau, Bahamas
Crawford, Kenneth L.....612 Douglas, Kalamazoo
Crawford, Porter F. (A).....Box 831, Kalamazoo
Crawley, Kenneth R. (A)..301 Henrietta St., Kalamazoo
Creager, Ray O.....1218 Bronson Circle, Kalamazoo
Cretsinger, Francis C.....224 E. Cedar St., Kalamazoo
Currier, Richard K.....6646 Portage Rd., Kalamazoo

Dahlstrom, Doris E...723 S. Westnedge Ave., Kalamazoo
Dana, Robert L.....228 W. Cedar St., Kalamazoo
Davis, Don G. (A)..1210 Saunders Crescent, Ann Arbor
Decker, Wm. A.....1207 Oakland, Kalamazoo
Delbert, Stewart G.....914 S. Burdick St., Kalamazoo
DeLong, Robt. E.....Borgess Med. Center, Kalamazoo
DePree, Harold E.....252 E. Lovell St., Kalamazoo
De Vries, John M.....516 Whites Rd., Kalamazoo
Dew, Robt. R.....1711 Merrill St., Kalamazoo
DeWitt, Norman L.....103 N. Burdick St., Kalamazoo
Dick, Leo A.....428 Stuart Ave., Kalamazoo
Doezema, Edward R.....516 Whites Rd., Kalamazoo
Dowd, Bennard J.....1415 Henderson Dr., Kalamazoo
Doyle, Fredk. M.....3320 Bronson Blvd., Kalamazoo 37
Dugger, James A.....2901 S. Westnedge, Kalamazoo

Endrei, Arisztid.....1312 Oakland Dr., Kalamazoo
Estill, Don V.....414 W. Patterson St., Kalamazoo
Fath, August F.....1711 Merrill, Kalamazoo
Ferguson, Robt. K.....1324 S. Park, Kalamazoo
Finton, Max A.....252 E. Lovell St., Kalamazoo
Flunt, Roman....Box A, Kalamazoo St. Hos., Kalamazoo
Fopeano, John V.....1711 Merrill St., Kalamazoo
Fry, J. William.....420 John St., Kalamazoo
Fulkerson, Clark B. (L).....R. 1, Vicksburg
Fuller, Paul M.....1700 Gull Rd., Kalamazoo
Furlong, N. Kenneth.....145 S. Prospect St., Kalamazoo

Gardner, Carl A...1410 American Nat'l Bank, Kalamazoo
Gerard, Earl S. (A).....3410 Runnymede Dr., Kalamazoo
Gerstner, Louis W.....2425 Law Ave., Kalamazoo
Gerstner, Richard M...212 Bronson Med. Ctr., Kalamazoo
Gibson, Richard E.....Schoolcraft
Ginnebaugh, L. A.....141 S. Prairie Ave., Kalamazoo
Gladstone, Wm. S.....458 W. South St., Kalamazoo
Glaser, Danl. F.....463 Academy St., Kalamazoo
Goodhue, Lolita G.....2503 W. Main St., Kalamazoo
Gove, Robert S.....1631 Gull Rd., Kalamazoo
Graff, Michael.....2529 Fairfield Ave., Kalamazoo
Grekin, Robt. H.....136 E. Michigan Ave., Kalamazoo
Gremel, Norman.....458 W. South St., Kalamazoo

Haddock, D. A., Jr.....6646 Portage St., Kalamazoo
Hailman, Harold F.....301 Henrietta St., Kalamazoo
Hammer, John M.....100 Maple St., Parchment
Hanson, Curtis M.....252 E. Lovell St., Kalamazoo
Hare, J. Donald.....516 Whites Road, Kalamazoo
Harrell, Frank G.....1620 Gull Rd., Kalamazoo
Harrelson, W. D.....1324 S. Park, Kalamazoo
Harvey, Donald A.....2308 Crane Ave., Kalamazoo
Hayner, Russell A.....4015 Portage, Kalamazoo
Heersma, H. Sidney.....1711 Merrill St., Kalamazoo
Heinle, Robt. W.....Med. Div., Upjohn Co., Kalamazoo
Hendrix, J. W. (A).....2430 Wildemere St., Kalamazoo
Hersey, E. Freeman.....1215 Oakland Drive, Kalamazoo
Hersey, Margaret S.....1215 Oakland Drive, Kalamazoo
Hildreth, Roscoe C.....458 W. South St., Kalamazoo 46
Hodgman, Albert B.....1601 Grand Ave., Kalamazoo
Hoebeke, Wm. G. (L).....252 E. Lovell St., Kalamazoo
Hoekstra, George J.....100 Maple St., Parchment
Howard, R. Grant.....Borgess Med. Center, Kalamazoo
Howard, Willard H.....1602 Gull Rd., Kalamazoo
Hubbard, Edwin M.....463 Academy St., Kalamazoo
Hume, Robt. H.....1711 Merrill St., Kalamazoo
Hunt, Jack (M).....1631 Gull Rd., Kalamazoo
Huyser, Wm. C. (L).....427 S. Burdick St., Kalamazoo

Irwin, Wm. D.....103 N. Burdick St., Kalamazoo

Jennings, Robt. M.....Box A, Kalamazoo
Johnson, Fenimore T. (A).....Med. Div., Upjohn Co., Kalamazoo

Kavanaugh, John.....1631 Gull Rd., Kalamazoo
Kavanaugh, Wm. R.....612 Douglas Ave., Kalamazoo
Kercher, Ervin F.....2019 Rambling, Kalamazoo
Kihm, John L.....1223 S. Park St., Kalamazoo
Kilgore, Robt. N.....252 E. Lovell St., Kalamazoo
Kincaid, Joseph E.....420 John St., Kalamazoo
Klerk, Wm. J.....914 S. Burdick St., Kalamazoo
Knapp, Robert D., Jr. (A).....Mayo Clinic, Rochester, Minn.
Koestner, Paul A.....1303 Portage St., Kalamazoo

Lavender, Howard C. (A).....136 E. Michigan Ave., Kalamazoo
Lawrence, James O.....1409 Henderson Dr., Kalamazoo
Lawson, James B. (A).....RR 1, Box 190, Vicksburg
Lemmer, Richard A.....252 E. Lovell St., Kalamazoo
Light, Richard U...916 American Nat'l Bldg., Kalamazoo
Littig, John D.....1708 Embury Rd., Kalamazoo
Locklin, W. Kaye.....136 E. Michigan, Kalamazoo
Louisell, J. M.....1815 Holiday Lane, Kalamazoo
Loynd, James W., II.....1324 S. Park St., Kalamazoo

MacDonald, M. A.....2824 Hill 'n Brook Dr., Kalamazoo
MacGregor, John R.....100 Maple St., Parchment
Machin, Harold A.....420 John St., Kalamazoo
Malone, James G.....420 John St., Kalamazoo
Margolis, Fredk. J.....2901 S. Westnedge, Kalamazoo
Marshall, Don.....252 E. Lovell St., Kalamazoo

Marshall, Evelyn M. W. (A).....1508 Timberlane Dr., Kalamazoo
Marshall, Wm. P.....160 Edgemoor Ave., Kalamazoo
Martens, Irvin J.....1521 Gull Rd., Kalamazoo
May, Donald G.....516 Whites Rd., Kalamazoo
McLeod, Garrard A., Ph.D. (A)..Upjohn Co., Kalamazoo
McMahon, F. Gilbert.....2823 Fleetwood Dr., Kalamazoo
McManus, James W.....1416 Academy St., Kalamazoo
Mellis, Richard.....516 Whites Rd., Kalamazoo
Moe, Carl R.....1324 S. Park St., Kalamazoo
Molony, Basil A.....3603 Runnymede Dr., Kalamazoo
Morter, Roy A. (L).....2421 Sheffield, Kalamazoo
Neerken, Adrian J.....1318 Amer. Nat'l Bldg., Kalamazoo
Nicholson, Robt. M.....1711 Merrill, Kalamazoo
O'Donovan, C. J.....664 Contention Lane, Berwyn, Pa.
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Patmos, Martin.....1207 Cherry St., Kalamazoo
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Rigterink, Gerald H.....433 S. Rose St., Kalamazoo
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Rockwell, Donald C.....1227 Jefferson, Kalamazoo 48
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Bratt, Harvey J.....833 Lake Dr. S.E., Grand Rapids 6

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Ryskamp, James J., Jr. (A).....3805 Denfeld Ave., Kensington, Maryland

Santinga, John T. (A).....3973 USAF Hosp., APO 284, New York, N. Y.
Schaubel, Howard J.....124 Fulton St. E., Grand Rapids 2
Schek, Donald C.....2749 Clyde Park S.W., Grand Rapids 8
Schermerhorn, L. J. (R).....2317 Vine Hill Rd., Santa Cruz, Calif.
Schlosser, Ralph J.....456 Cherry St., Grand Rapids 3
Schneider, Geo. R.....1810 Wealthy St. S.E., Grand Rapids 6
Schnoor, Elmer W.....844 Iroquois Drive S.E., Grand Rapids 6
Schnute, Louise F.....146 Monroe N.W., Grand Rapids 2
Schwaderer, Thos. G. (A).....100 Michigan St. N.E., Grand Rapids 3
Scott, Wm. B.....26 Sheldon Ave. S.E., Grand Rapids 2
Sculley, Raymond E.....20 Burton S.E., Grand Rapids 7
Seime, Reuben I.....617 Plymouth Rd., Grand Rapids
Sevensma, Elisha S. (L).....1077 Leonard N.E., Grand Rapids
Sevensma, Eugene S.....1077 Leonard N.E., Grand Rapids
Sharda, Martin.....740 Alger St. S.E., Grand Rapids
Sharp, Robert B.....833 Lake Dr. S.E., Grand Rapids 6
Sheehan, E. Gregg.....1810 Wealthy St. S.E., Grand Rapids 6
Shellman, Millard W.....50 College Ave. S.E., Grand Rapids 3
Sidell, Richard H.....515 Lakeside Dr., S.E., Grand Rapids 6
Siebers, Bernard H.....1085 Leonard N.E., Grand Rapids
Sikkema, Donald E. (A).....6674 Clyde Park Ave., Grand Rapids
Skendzel, L. P. (A).....General Hospital, Indianapolis, Ind.
Sluyter, John S.....2740 Eastern S.E., Grand Rapids 7
Smith, Dean B.....245 State St. S.E., Grand Rapids
Smith, John H.....1840 Wealthy St. S.E., Grand Rapids 6
Smith, Robt. B.....26 Sheldon Ave. S.E., Grand Rapids 2
Smith, R. Earle (L).....74 Ionia Ave. N.W., Grand Rapids 2
Snider, John D.....2130 Godwin Ave. S.E., Grand Rapids
Snyder, Clarence A. (A).....2463 College Ave. S.E., Grand Rapids 7
Snyder, Clarence H.....500 Cherry St. S.E., Grand Rapids 3
Southwick, C. H.....515 Lakeside Dr. S.E., Grand Rapids 6
Southwick, G. Howard.....515 Lakeside S.E., Grand Rapids
Spencer, Herbert H.....515 Lakeside Dr. S.E., Grand Rapids 6
Sprague, Wm. E.....1043 Fulton St. W., Grand Rapids 4
Starr, Charles R.....1810 Wealthy St. S.E., Grand Rapids 6
Steffensen, W. H.....1810 Wealthy St. S.E., Grand Rapids
Stonehouse, Ganet G.....408 Medical Arts Bldg., Grand Rapids 2
Stoneman, Fernley.....3011 Wilson, Grandville
Stover, Virgil E.....860 Gladstone S.E., Grand Rapids 6
Stuart, Gerhardus J. (L).....1140 Keystone Ave., River Forest, Ill.
Sugg, Cullen E.....303 Fulton St. E., Grand Rapids 3
Sugiyama, Tetsuo.....110 E. Fulton St., Grand Rapids 2

Sun, Keh Ming....St. Marys Hosp. Lab., Grand Rapids 3
Sus Strong, Carl A. (R)....316 Union S.E., Grand Rapids
Swanson, Alfred B.....1810 Wealthy St. S.E., Grand Rapids 6
Swenson, Harold C.....124 Fulton St. E., Grand Rapids 2
Telego, A. J.....2505 Fletcher Dr. N.E., Grand Rapids 6
Ten Have, John.....3515 Briggs Blvd. N.E., Grand Rapids 2
Ter Keurst, Donald H. (A).....6712 S. Division Ave., Grand Rapids
Tesseine, Arthur J.....1328 Madison S.E., Grand Rapids 7
Teusink, James H.....Cedar Springs
Theodore, Paul G.....1520 Plainfield Ave. N.E., Grand Rapids 5
Thompson, Athol B.....1810 Wealthy St. S.E., Grand Rapids 6
Thompson, Edward C.....153 Lafayette Ave. S.E. Grand Rapids 3
Thompson, Frank D.....4011 Reeds Lk. Blvd. S.E., Grand Rapids 6
Tidey, Marcus B. (A).....7157 Wildermere Dr. N.E., Rockford
Tiffany, Jos. C.....2322 Jefferson Dr. S.E., Grand Rapids 7
Torgerson, Wm. R.....Ramona Medical Center, Grand Rapids
Torgerson, Wm. R., Jr.....515 Lakeside Dr. S.E., Grand Rapids 6
Townsend, Jack H.....515 Lakeside Dr. S.E., Grand Rapids 6
Troske, Robt. L. (M).....26 Foster Circle, Ft. Rucker, Alabama
Truog, Clarence P.....110 Fulton St. E., Grand Rapids 2
Valdmanis, Ferdinands (M).....2120 Lake Dr. S.E., Grand Rapids
Van Bree, Raymond S.....1521 Ridgewood S.E., Grand Rapids 6
Vanden Berg, A. R.....833 Lake Dr. S.E., Grand Rapids 6
Vanden Berg, Henry J. (L)....2933 Bonnell Road S.E., Grand Rapids
Vanden Berg, Wm. O.....50 College Ave. S.E., Grand Rapids 3
Vander Kolk, K. J.....2740 Eastern Ave. S.E., Grand Rapids 7
Vander Meer, Raymond.....26 Sheldon Ave. S.E., Grand Rapids 2
Vandermolen, John....124 Fulton St. E., Grand Rapids 2
Vander Ploeg, R. A.....153 Lafayette S.E., Grand Rapids 6
Vander Ploeg, Wm. H.....833 Lake Dr. S.E., Grand Rapids 6
Van Der Veer, Corwin G.....245 State St. S.E., Grand Rapids 3
Van Dommelen, G. M.....456 Cherry St. S.E., Grand Rapids 3
Van Duine, Henry J.....153 Lafayette S.E., Grand Rapids 3
Van Dyke, Harold E.....1108 Leonard St. N.E., Grand Rapids
Van Goor, Kornelius.....26 Sheldon Ave. S.E., Grand Rapids 2
Van Noord, Gelmer A.....6850 Division Ave. S., Grand Rapids 8
Van Portfliet, Paul....245 State St. S.E., Grand Rapids 3
Vansolkema, Andrew A.....953 E. Fulton St., Grand Rapids
Van't Hof, Albert....50 College Ave. S.E., Grand Rapids 3
Van Vliet, Peter D.....1416 Berkman Ct. S.W., Rochester, Minn.
Van Woerkom, Danl.....933 Leonard St. N.W., Grand Rapids 4
Van Zanten Kuiper, K.....2208 Madison Ave. S.E., Grand Rapids
Van Zwalenburg, B. R.....2054 Anderson Dr. S.E., Grand Rapids 6
Vasu, C. Mark (A).....347 Bostwick Ave. N.E., Grand Rapids 3
Veldman, Harold E.....26 Sheldon Ave., Grand Rapids 2
Veltman, Jay H.....3946 G 30th St., Grandville
Venema, Jay R.....540 Overbrook Lane S.E., Grand Rapids 7
Ver Lee, Jimmie J. (A).....Galmi Hosp. Sudan Int., Via Mapauua Mission Galmi French W. Africa
Ver Meulen, John (L)....2400 Wyoming, Grand Rapids
Ver Meulen, Peter (A).....105 Baynton N.E., Grand Rapids
Verwys, A. L. Hubert.....815 Alger St. S.E., Grand Rapids 7
Vining, Keats K., Jr.....515 Lakeside Dr. S.E., Grand Rapids
Vis, William R. (L).....26 Sheldon Ave., S.E., Grand Rapids 2
Visscher, H. C.....515 Lakeside Dr. S.E., Grand Rapids 6
Visser, Earl R. (A)....124 Fulton St. E., Grand Rapids 2
Vogel, Anton....1204 Madison Ave. S.E., Grand Rapids
Voss, John A.....2060 Alpine Ave. N.W., Grand Rapids 4
Vroon, John....50 College Ave. S.E., Grand Rapids 3
Vyn, Jay D.....7119 Driftwood S.E., Grand Rapids 6
Wahby, Elmer F.....300 Bostwick Ave. N.E., Grand Rapids
Walma, Daniel (A).....5762 Cadillac Dr., Indianapolis 24, Ind.
Wassink, Roger N. (A).....Shriners Hospital, Winnipeg, Canada
Waterman, Donald F.....515 Lakeside Dr. S.E., Grand Rapids
Webb, Clarence F.....833 Lake Dr. S.E., Grand Rapids 6
Webber, Jerome E.....50 College Ave. S.E., Grand Rapids 3
Weeber, Thomas A. (A)....3011 Wilson S.W., Grandville
Weller, Keith E.....1200 Lake Drive S.E., Grand Rapids 6
Wells, S. Merrill, Jr. (L).....2716 Bonnell Dr. S.E., Grand Rapids 6
Wenger, Aaron V. (L).....132 Grand Ave. N.E., Grand Rapids
Wenger, John N.....Coopersville
Westendorp, Floyd.....6850 Division Ave. S., Grand Rapids 8
Westerhoff, Robert J.....2740 Eastern Ave. S.E., Grand Rapids
Whinery, Jos. F.....50 College Ave. S.E., Grand Rapids 3
Whitehouse, John D.....1201 Colorado Ave. S.E., Grand Rapids 6
Whittenberger, R. N.....245 State St. S.E., Grand Rapids 3
Wiarda, Roy J., Jr. (A).....1427 S. Broadway, E. Providence, R. I.
Wiese, John L.....50 College Ave. S.E., Grand Rapids 3
Wilderom, Morris....303 Ionia Ave. S.W., Grand Rapids
Wilkes, John B.....1328 Madison Ave. S.E., Grand Rapids 7
Wilkinson, C. A.....2030 Leonard St. N.W., Grand Rapids
Williams, John R.....1111 Conlon S.E., Grand Rapids 6
Wilson, John R.....1033 Fulton St. W., Grand Rapids
Wilson, Robert J. (A).....524 Springfield N.W., Comstock Park
Wilson, Wm. E. (R).....37 Prospect Ave. N.E., Grand Rapids
Winfield, Emery D.....457 Burton S.E., Grand Rapids
Winter, Garrett E.....1967 Godfrey Ave. S.W., Grand Rapids 9
Wright, Thos. B.....2614 Plainfield Ave. N.E., Grand Rapids 8
Wurz, John F.....201 Norwood Ave. S.E., Grand Rapids 6
Wyngaarden, Martin K.....245 State St. S.E., Grand Rapids 3
Yared, Jerome A.....651 Cherry St. S.E., Grand Rapids 6
Yost, William G., Jr.....50 College Ave. S.E., Grand Rapids 3
Zadvinskis, Z.....833 Lake Dr. S.E., Grand Rapids
Zwemer, Rodger J.....1810 Wealthy St. S.E., Grand Rapids

LAPEER COUNTY MEDICAL SOCIETY (110)

Abruzzo, Anthony M.....Lapeer State Home, Lapeer
Bishop, G. Clare.....Almont
Boruch, Leon R.....Drawer A, Lapeer St. Hme, Lapeer
Buchanan, Thos. K. (A)....Ypsilanti St. Hosp., Ypsilanti
Conaway, Chas. E.....746 Monroe St., Lapeer
Dorland, Clarke.....221 Lincoln St., Lapeer
Doty, James R.....315 Clay St., Lapeer
Greavu, Cornell, Jr.....North Branch
Heitsch, Wm. C.....307 Clay St., Lapeer
House, Clifford.....1026 N. Madison, Lapeer
Kiehler, E. G., II.....1444 W. Genesee St., Lapeer
Kocur, Lubomira.....Drawer A, Lapeer
Lebedovych, Emil..Drawer A, Lapeer State Home, Lapeer
Lebedovych, Ksenia.....Drawer A, Lapeer State Home, Lapeer
Leith, Dorothy L.....240 Main St., Imlay City
Lynk, Stanley M.....4589 Lippincott, Lapeer
McBride, John R.....431 Washington St., Lapeer
Panczak, Tamara (A).....3952 Evaline, Detroit 12
Smith, Ellen.....400 White Rd., Rte. 1, Columbiaville
Smith, Glenn L.....6552 Imlay City Rd., Imlay City
Utley, Marvin (A).....Delaware St. Hospital, Farnhurst, Delaware
Zemmer, Harry B.....311 Clay St., Lapeer
Zemmer, H. R. (A).....Lapeer
Zolliker, Carl R. (R).....3646 Slattery Rd., Lum

LENAWEE COUNTY MEDICAL SOCIETY (114)

Abraham, A. O.....Hudson
Benz, Carl A.....308 N. Broad St., Adrian
Berghuis, John.....693 Stockford Dr., Adrian
Blanchard, Lowell E.....Hudson
Blanden, Merwin R.....Tecumseh
Boyd, James W.....Bixby Hospital, Adrian
Claxton, Wilbert T.....Britton
Coak, Richard D.....Herrick Memorial Hosp., Tecumseh
Cook, Carlton L.....W. Chicago Rd., Tecumseh
Dustin, Richard E.....103 W. Brown St., Tecumseh
Eddy, Howard R. C.....Mill Rd., Adrian
Feeney, J. L.....Mill Street, Adrian
Fitzsimmons, Francis J.....128 E. Butler St., Adrian
Gilkey William C.....693 Stockford Drive, Adrian
Gilmartin, Richard.....Mill St., Adrian
Greiner, Robert A.....Professional Bldg., Adrian
Hammel, Richard T.....Tecumseh
Hammersley, Gordon.....1336 University Ave., Adrian
Harrison, Robt. E.....418 W. Adrian, Blissfield
Heffron, Chas. H.....231 N. Main St., Adrian
Heffron, C. Harold (A).....231 N. Main St., Adrian
Heffron, Howard H.....231 N. Main St., Adrian
Helzerman, Ralph F.....112 S. Ottawa St., Tecumseh
Hewes, Wm. H.....Mill Rd., Adrian
Hinshaw, Warren V. (A).....139 N. Main St., Adrian
Locke, Francis A.....767 W. Maumee, Adrian
Marsh, Roland G. B.....610 W. Logan St., Tecumseh
Miller, P. Lynford.....310 E. Maumee St., Adrian
Ocamb, Harold D.....900 W. Chicago, Tecumseh
O'Connor, Archie R.....122 Locust St., Clinton
Parker, Donald A.....4396 Evergreen Dr., Adrian
Patmos, Bernard.....127 E. Maumee St., Adrian
Phelan, Alvin J.....10 Cairns, Tecumseh
Raabe, Elmer C.....Morenci
Richey, Bert R.....765 Manitou Rd., Manitou Beach
Rogers, John D.....146 Toledo St., Adrian
Sarapo, Donato F.....Mill St., Adrian
Skufis, Eleanor P.....774 College Ave., Adrian
Skufis, Xenophon.....123 E. Chestnut, Adrian
Stark, Emily S.....573 Front St., Adrian
Stewart, Landis C.....750 High St., Adrian
Tubbs, Ray V.....120 E. Adrian, Blissfield
Van Dusen, Chad A. (L).....RFD 5, Blissfield
Wentz, Patricia.....760 Riverside, Adrian
Whitehouse, Keith H.....Morenci
Wilson, Geo. C.....Box 224, Clinton
Wolf, Marvin B.....689 Stockford Dr., Adrian
Wynn, Geo. H.....1115 W. Maumee, Adrian

LIVINGSTON COUNTY MEDICAL SOCIETY (118)

Barton, Thos. A.....116 N. Michigan, Howell
Chelsky, Morris.....Howell
Clarke, Niles A.....624 Spencer Rd., Brighton
Duffy, Ray M.....Box 106, Pinckney
Fidler, Wm. F.....Mich. State Sanitarium, Howell
Green, Walter E.....10008 Marlowe, Detroit 27
Harebottle, Norman.....Fowlerville
Hauer, R. Fred.....Fowlerville
Hendren, Jesse J. (R).....Fowlerville
Higby, Thomas F.....Fowlerville
Hill, Harold C.....116 N. Michigan Ave., Howell
Hoffman, Stanley L.....1200 Byron Road, Howell
May, Louis E.....924 W. Grand River, Howell
Perry, Florence J. C.....17640 San Rose Ave., Lathrup Village
Phillips, R. W.....Hamburg
Polack, Robt. T.....1223 Thruber Dr., Howell
Schenden, A. J. (R).....6335 W. M-36, Pinckney
Sheng, Luke H. C.....111 W. Grand River, Brighton
Smith, Russell F.....9569 Main St., Whitmore Lake
Stuber, R. V.....1200 Byron Rd., Howell
Wadlund, Robert R.....620 Byron Road, Howell
Walker, Enos G.....4485 Cordley Lake, Lakeland
Wang, Stella K. C.....111 Grand River, Brighton
Woodworth, Edwin S.....1200 Byron Rd., Howell

LUCE COUNTY MEDICAL SOCIETY (122)

Banach, Alexius.....Newberry State Hosp., Newberry
Gibson, Robt. E. L., Jr.....207 W. John St., Newberry
Grennan, Lawrence E. (A).....Butterworth Hospital, Grand Rapids
Hicks, R. P.....210 W. John St., Newberry
Purmort, Wm. R., Jr.....Newberry State Hosp., Newberry
Randazzo, Salvatore.....Newberry State Hosp., Newberry
Surrell, Matthew A.....210 W. John St., Newberry
Thompson, Thos. W.....Newberry State Hosp., Newberry

MACOMB COUNTY MEDICAL SOCIETY (126)

Adler, Morton W.....19188 Appoline St., Detroit 35
Alexander, James H. (M).....25815 Harper, St. Clair Shores
Ambrose, Robt. H.....18801 E. Ten Mile Rd., Roseville
Audretsch, F. E.....36275 Alfred, New Baltimore

Barker, John G.....8050 Warren Blvd., Center Line
Beecher, Alvin J.....21501 Kelly, East Detroit
Biluk, Frank J.....GM Tech. Center, Warren
Bond, Franklyn F.....4861 E. Nine Mile Rd, Warren
Bower, Allen B.....Armada
Bryce, James W.....25219 Van Dyke Ave., Center Line
Buckley, Danl. J.....160 S. Walnut St., Mount Clemens

Chabator, George.....294 Benjamin, Romeo
Charbeneau, Harold P.....229 S. Gratiot, Mt. Clemens
Clay, Joel W.....263 S. Gratiot Ave., Mt. Clemens
Collon, David D.D.S. (A).....Romeo
Corbett, John....708 Monitor Leader Bldg., Mt. Clemens
Courtney, Rufus S.....St. Joseph Hosp., Mt. Clemens
Croman, Jos. M., Jr.....115 Cass Ave., Mt. Clemens
Curatolo, Victor.....67 Cass Ave., Mt. Clemens
Curlett, James E. (L)....26765 Gratiot Ave., Roseville

Darian, H. B.....11528 E. 12 Mile Rd., Warren
Deal, Harold R.....23700 Van Dyke, Warren
Depaulis, Dario C.....22644 Gratiot, East Detroit
Disney, Charles T.....P.O. Box 59, Gary, Indiana
Dudzinski, Edmund J.....424 Washington St., New Baltimore

Ebner, Charles M.....26401 Harper, St. Clair Shores
Ekelman, Seymour B.....14 Belleview, Mt. Clemens
Ellias, Elmer P.....23700 Van Dyke, Warren
Engels, John A.....69311 N. Main, Richmond
Erkfitz, Arthur W.....26401 Harper Ave., St. Clair Shores

Finn, James Wm.....46056 Cass, Utica
Fulgenzi, Andrew A.....17301 E. Eight Mile Rd., East Detroit

Gesser, Charles.....20914 Kelly Road, East Detroit
Goldin, Morris I.....6902 Chicago Rd., Warren
Goldman, Bernard J.....243 S. Gratiot Ave., Mt. Clemens

Hartmann, Waldemar B.....1416 S. Gratiot, Mt. Clemens
Heine, Austin W.....38567 Riverside Dr., Mt. Clemens
Hiller, Herbert M.....13500 E. Twelve Mile Rd., Warren
Hranchook, Michael.....30001 Van Dyke, Warren
Hull, Frank J.....Monitor Leader Bldg., Mt. Clemens

Isbey, Edward K.....856 Westchester Rd., Grosse Pointe 30
Ivkovich, Peter (A).....12501 E. 23 Mile Rd., Utica

Jacobs, Manuel.....23700 Van Dyke Ave., Warren
Jewell, James H.....Roseville Theatre Bldg., Roseville

Kane, John P.....67 Cass Ave., Mt. Clemens
Kane, Peter V.....67 Cass Ave., Mt. Clemens
Kane, Wm. J.....69 Cass Ave., Mt. Clemens
Kingsley, Joyce W., Jr.....18801 Ten Mile Rd., Roseville
Kirker, J. G.....68259 Main St., Richmond
Kirtland, Wm. B., Jr.....18801 E. Ten Mile Rd., Roseville
Klein, Alfred A.....23700 Van Dyke, Warren
Kommel, Richard M.....13134 Talbot, Huntington Woods
Krieger, Harvey A. (A)....13500 E. 12 Mile Rd., Warren
Kroon, Joseph D.....37984 Bonkay, Mt. Clemens

Lapp, Charles.....7817 McClellan, Utica
Ledbetter, Rene B.....45439 Klinghammer Dr., Utica
Levi, Charles.....8262 E. Twelve Mile Rd., Warren
Lublin, Ann.....21349 Kelly Rd., East Detroit

Maguire, Andrew J.....45569 Van Dyke, Utica
Mark, Hansi.....8236 E. 12 Mile Rd., Warren
Martin, Wm. L.....117 S. Main St., Romeo
Mattes, Max W.....18456 Wildemere, Detroit 21
Matthews, C., Jr.....91 Cass Ave., Mt. Clemens
Maxim, Edward S.....253 South Gratiot, Mt. Clemens
McGinty, John D.....243 S. Gratiot, Mt. Clemens
McMorrow, Kathryn.....15341 Nine Mile Rd., East Detroit
McRae, Cameron F.....43525 Elizbeth Rd., Mt. Clemens
Merametdjian, Krikor.....8276 Cadillac, Warren
Merritt, Jule J.....36640 S. Gratiot Ave., Mt. Clemens
Metropoulos, S. G.....11600 Meadowbrook Dr., Warren
Miller, Sidney S.....22048 Gratiot, East Detroit
Moore, Geo. F. (L).....67 Cass Ave., Mt. Clemens
Morris, Gerald W.....14 Belleview, Mt. Clemens
Mulligan, Philip T.....612 Monitor Leader Bldg., Mt. Clemens

Nance, Marion E.....16666 14 Mile Rd., Fraser
Neiswander, Paul L.....Fisher Body Div. GMC, Warren
Nicholson, Hiram A.....26318 Patricia, Warren
Nutting, Helen M.....22631 Greater Mack, St. Clair Shores

Ornstein, Chas.....21701 Kelly Rd., East Detroit
O'Shee, Vincent.....8216 E. Twelve Mile, Warren

Pacho, Marc.....27075 Gail, Warren
Paris, Delmo A.....18801 E. Ten Mile Rd., Roseville
Parmelee, N. H.....26758 Gratiot, Roseville
Perez, Florence.....27075 Gail, Warren

Reichman, Jos. J.....67 Cass Ave., Mt. Clemens
Reitzel, Rufus H.....199 S. Gratiot Ave., Mt. Clemens
Reizen, Maurice S.....10564 Ludlow, Huntington Woods
Revere, Jos. O.....192 S. Gratiot Ave., Mt. Clemens
Riddle, Charles B.....20945 Kelly Rd., East Detroit
Rinkenberger, E. A.....243 S. Gratiot Ave., Mt. Clemens
Rivkin, Jos.....14 Belleview, Mt. Clemens
Rizzo, Albert.....21507 Harper Ave., St. Clair Shores
Rooney, Robert.....23700 Van Dyke, Warren
Roth, Geo. E.....19136 Mendota Ave., Detroit 21
Rothman, Arthur M.....22422 Gratiot Ave., East Detroit
Rourke, Ronald E.....21503 Harper Ave., St. Clair Shores
Rousseau, Daniel L.....Monitor Leader Bldg., Mt. Clemens
Ruedisueli, C. A.....19 Breitmeyer Pl., Mt. Clemens
Rush, Wm. E.....25815 Harper, St. Clair Shores
Ryan, Jack.....23700 Van Dyke Ave., Warren

Salot, Russell F.....67 Cass Ave., Mt. Clemens
Scher, Jos. N.....130 Cass Ave., Mt. Clemens
Scher, Sydney.....132 Cass Ave., Mt. Clemens
Schmunk, Robert F.....136 Cass Ave., Mt. Clemens
Siegfried, Edward G.....229 S. Gratiot Ave., Mt. Clemens
Sims, Wm. N.....229 S. Gratiot, Mt. Clemens
Singer, Nelson.....22100 Gratiot Ave., East Detroit
Smith, Milton C. (L)....60 S. Gratiot Ave., Mt. Clemens
Starbird, Wm. A.....8216 E. 12 Mile Rd., Warren
Steinberger, Eugene.....23700 Van Dyke, Warren
Stepka, Joseph E.....7817 McClellan, Utica
Stone, Elizabeth A.....Romeo
Stone, Julius.....67 Cass Ave., Mt. Clemens
Strempek, Walter F.....241 N. Main, Romeo
Stryker, Oscar D.....43525 Elizabeth Rd., Mt. Clemens
Sturm, Fredk. A.....76 Lochmoor, Grosse Pointe 36
Suksta, Adolph W.....23250 Gratiot, East Detroit
Suzuki, M.....23700 Van Dyke, Warren

Thompson, Alfred A.....126 Cass Ave., Mt. Clemens
Tinkey, L. Leo.....18811 Ten Mile Rd., Roseville
Trinkaus, Wm. F.....22033 Kelly Rd., East Detroit

Urbancic, William.....24605 Almond, East Detroit

Weiss, Jack I.....23700 Van Dyke Ave., Warren
Whitley, Alec.....30233 Jefferson Ave., St. Clair Shores
Wiley, D. Bruce.....46056 Cass Ave., Utica
Witus, Carl.....21349 Kelly Rd., East Detroit
Wyte, Wm. C.....263 S. Gratiot Ave., Mt. Clemens

Yamasaki, Ken.....23700 Van Dyke, Warren

Zavela, Dan.....679 N. Renaud, Grosse Pte. Wds.
Zook, Gilbert E. (A).....309 Monitor Leader Bldg., Mt. Clemens

MANISTEE COUNTY MEDICAL SOCIETY (130)

Futterer, LeRoy A.....Forest Clinic Bldg., Manistee
Garneau, Robt. R.....Forest Clinic Bldg., Manistee
Gunderson, Edw. P., Jr.....Greenbush St., Manistee
Hansen, Ernest C.....78 Maple St., Manistee
Kiley, James A.....Forest Clinic Bldg., Manistee
Konopa, John F.....57 Poplar St., Manistee
Lalime, Ruth E. (A).....Box C, Traverse City
Lewis, Lee A. (L).....Manistee
Miller, Ernest B.....326 First St., Manistee
Oakes, Ellery A. (R).....576 Bryant Ave., Manistee
Ramsdell, Homer A.....398 River St., Manistee
Rosenow, K. G.....Forest Clinic Bldg., Manistee
Schwarz, Marlowe L.....Onekama
Schwing, Donald N.....Forest Clinic Bldg., Manistee
Wild, David A.....Forest Clinic Bldg., Manistee
Willoughby, Gordon W.....Box 97, Bear Lake

MARQUETTE-ALGER COUNTY MEDICAL SOCIETY (134)

Acocks, James R.....Morgan Hgts Sanatorium, Marquette
Amolsch, Arthur L.....1008 Bluff St., Marquette
Bennett, Arthur K. (L).....Box 436, Mt. Dora, Fla.
Bennett, Matthew C.....Medical Building, Marquette
Berry, Robt. F.....Medical Building, Marquette
Bertucci, Jos. P.....114 S. First St., Ishpeming
Bolan, Beatrice.....City Hall, Marquette
Bolitho, Thos. B.....Medical Building, Marquette
Breen, Donald J. (M).....56th USAF Hospital, Ki Sawyer AFB, Gwinn
Carefoot, Leonard.....St. Lukes Hospital, Marquette
Carter, James M.....Medical Building, Marquette
Casler, Wilbur L. (L).....131 E. Ridge St., Marquette
Conley, Donal T.....1st Natl. Bank Bldg., Marquette
Cooperstock, Moses.....Medical Building, Marquette
Corcoran, Wm. A.....200 S. Main St., Ishpeming
D'Adesky, R. G.....125 W. Washington, Marquette
Dailey, Walter S.....Munising Hospital, Munising
Drom, Robert E.....Marq. Branch Prison, Marquette
Drury, Chas. P. (R).....416 E. Hewitt Ave., Marquette
Elzinga, Eugene R.....315 N. Front St., Marquette
Erickson, Douglas W.....Ishpeming Hospital, Ishpeming
Grain, Gerald O.....Rte. 1, Box 1200, Marquette
Granger, David W., Jr. (M).....56th USAF Hosp., Ki Sawyer AFB, Gwinn
Green, Southgate J.....Gwinn
Harkin, John C.....Nestor Block, Marquette
Hettle, Paul J.....211 Savings Bank Bldg., Marquette
Hornbogen, Danl. P.....101 S. Front St., Marquette
Howe, Lloyd W. (L).....101 S. Front St., Marquette
Huffman, Elston R.....427 W. College, Marquette
Hulse, Robert C.....210 E. Superior St., Munising
Hurst, Dorsey W.....501 Mitchell St., Ki Sawyer AFB, Gwinn
Jaedecke, Robt. G.....829 Croix, Negaunee
Kane, Elizabeth D.....418 W. Magnetic, Marquette
Kloster, Ronald M. (M).....56th Dispensary, Ki Sawyer AFB, Gwinn
Knutson, Geo. O. (A).....829 Croix St., Negaunee
Koenig, Harry.....200 S. Main St., Ishpeming
Kronschnabel, E. F.....Medical Building, Marquette
Lambert, Warren C.....Medical Building, Marquette
Lindquist, Leo A.....Medical Building, Marquette
Lukancic, Louis P. (M).....515 Mitchell, Ki Sawyer AFB, Gwinn
Lyons, James W.....803 N. 3rd St., Marquette
Mason, James G. B. (M).....56th USAF Hospital, Ki Sawyer AFB, Gwinn
Matthews, Norman L.....N. Mich. Child Clinic, Marquette
McCarthy, Jos. S.....St. Marys Hospital, Marquette
Moore, Bert E.....Rte. 1, Box 77, Negaunee
Mudge, Wm. A.....108 Ridge St., Negaunee
Narotzky, Archie S.....Miracle Circle, Ishpeming
Olson, Walter R.....108 E. Munising Ave., Munising
Paine, Raymond L.....416 Teal Lake Ave., Negaunee
Pearson, Wallace G. (M).....500 Envader St., Ki Sawyer AFB, Gwinn
Preston, Rhea S. (M).....56th Dispensary, Ki Sawyer AFB, Gwinn
Rankin, Harold C. (M).....Ki Sawyer AFB, Gwinn
Rosenbaum, Louis.....540 E. Division, Ishpeming
Sabin, Fredk. C.....101 S. Front St., Marquette
Schroeder, W. Gene.....745 Mathe Ave., Ishpeming
Schmidt, Merle C. (A).....Medical Building, Marquette
Schweinsberg, Sara K. D. (A).....507 Bemis Rd., R.F.D., Saline
Sherwood, Clifford (A).....Holy Cross Hosp., Salt Lake City, Utah
Sosa, Robert.....Miracle Center, Ishpeming
Stein, Paul G. (A).....2306 S. Buchanan, Arlington 6 Va.
Swinton, Andrew L. (L).....101 S. Front St., Marquette
Tearnan, Raymond A. (L).....Munising
Van Riper, Paul (L).....Champion
Williams, Reginald G.....524 Mather St., Ishpeming
Wilson, George M., Jr.....Medical Building, Marquette
Wright, Kenneth C.....Medical Building, Marquette

MASON COUNTY MEDICAL SOCIETY (138)

Bacon, Herbert G. (Jr.).....101 N. Main, Scottville
Boldyreff, Ephraim B.....Custer
Boon, A. Floyd.....203 N. Ferry, Ludington
Carney, John R.....202 N. Park St., Ludington
Carney, Ruth V. C.....202 N. Park Ave., Ludington
Castellani, R. J.....P.O. Box 349, Ludington
Clark, Harry L. (L).....510 N. Lakeshore Dr., Ludington
Craymer, Austin.....420 N. Rath, Ludington
Ewing, R. L.....600 Tinkham Ave., Ludington
Hoffman, Howard B.....604 E. Ludington Ave., Ludington
Kleinschmidt, Gladys J.....401 E. Ludington Ave., Ludington
Martin, Wm. S.....107 Ludington, Ludington
Mayer, Gerry.....600 Tinkham Ave., Ludington
Morrow, Wm. J.....119 N. James St., Ludington
Ostrander, Robt. A.....Lakewood Dr., C7, Ludington
Paukstis, Chas. A.....111 E. Court St., Ludington
Sutter, Wm. F.....220 S. James St., Ludington

MECOSTA-OSCEOLA-LAKE COUNTY MEDICAL SOCIETY (142)

Bruggema, Jacob.....Main St., Evart
Chess, Leo F.....Reed City
Franklin, Benj. L. (L).....Remus
Haldeman, Jack.....1014 S. State St., Big Rapids

Hickox, Leland A.....1014 S. State St., Big Rapids
Ivkovich, Paul.....Reed City
Kilmer, David N. (A).....Box 745, Pineville, La.
Kilmer, Paul B.....Reed City
Kowaleski, Edward H.....Remus
Lincoln, Norman V.....Reed City
Merlo, Frank A.....206 S. Michigan St., Big Rapids
Nelson, Lorenzo R.....R.F.D. 1, Baldwin
Tyson, James L.....1014 S. State St., Big Rapids
Van Auken, Edward W.....229 S. Warren, Big Rapids
Walters, James E.....1014 S. State St., Big Rapids
Waun, James E.....604 Cherry St., Big Rapids
White, John A.....121 S. Michigan St., Big Rapids

MEDICAL SOCIETY OF NORTH CENTRAL COUNTIES (150)

Backe, John C. (R).....6401 N. Fifth Ave., St. Petersburg, Fla.
Barstow, Richard G.....Gaylord
Blaha, Vernon B.....Grayling
Boehm, John D. (R).....West Branch
Bontrager, W. E.....Mio
Christensen, D. E.....N. Mich. TB San., Gaylord
Clippert, C. G.....308 Michigan Ave., Grayling
Coulter, Keith D.....Box 138, Alden
Crandell, Clare H. (R).....West Branch
Dosch, Paul.....Grayling
Egle, Jos. L.....Northern Michigan TB Sanitarium, Gaylord
Forney, Fred A. (L).....
Godfroy, Bernard .....Roscommon
Hasty, Earl A.....West Branch
Hayes, Louis F.....Gaylord
Henig, Benj. E.....Grayling
Howarth, Thos. W.....Gladwin
Jardine, Hugh M.....West Branch
Libke, Robert S.....Gaylord
Oppy, Charles L.....Roscommon
Palm, George W. (A).....5081 S. Linden Rd., Swartz Creek
Peckham, Richard C.....Gaylord
Rusak, R. D.....Gladwin
Schaiberger, Geo. L.....West Branch
Stealy, Stanley A.....Grayling
Timreck, Harold A.....Gladwin
Van Oosten, Howard E.....117 Burgess, West Branch
Waltz, Paul.....West Branch
Wiegerink, L. T.....West Branch

MENOMINEE COUNTY MEDICAL SOCIETY (146)

Agneberg, Nils O.....531 First St., Menominee
Anderson, N. O. (A).....2009 Court St., Winona Lake, Ind.
Brukardt, Herman R.....534 First St., Menominee
Dewane, Francis J.....413 10th Ave., Menominee
Flanagan, Clarence B.....623 First St., Menominee
Glickman, L. Grant.....958 First St., Menominee
Gonty, Arthur.....St. Joseph Lloyd Hosp., Menominee
Heidenreich, John R.....Daggett
Hopson, George H.....104 Tenth Ave., Menominee
Hopson, Patricia C.....104 Tenth Ave., Menominee
Jones, Wm. S.....1146 Tenth Ave., Menominee
Jones, Wm. S., Jr.....1146 10th Ave., Menominee
Kerwell, Karm C.....P.O. Box 17, Stephenson
Olson, Robt. C.....828 Tenth Ave., Menominee
Rogers, Raymond J.....3212 16th St., Menominee
Towey, John W. (R).....1717 Orchid Lane, Middleton, Wis.

MIDLAND COUNTY MEDICAL SOCIETY (154)

Athay, R. M. (R).....4622 Concord Ct., Midland
Ballmer, Robt. S.....2715 Ashman St., Midland
Benjamin, Mac B.....4615 Eastman, Midland
Bernier, Jos. A.....218 E. Railway, Sanford
Blackhurst, J. F.....2715 Ashman St., Midland
Blackhurst, Robt. T.....Blackhurst Bldg., Midland
Bowsher, Robt. E.....2719 Ashman St., Midland
Bridge, Robt. G.....2715 Ashman, Midland
Bulmer, Dan J.....116 Harold St., Midland
Bush, Raymond C.....2510 Lucky St., Midland
Buskirk, Maurice D.....110 W. Sugnet, Midland
Cline, J. Daniel.....2438 W. Stewart Rd., Midland
Devlin, James A.....115 Jerome, Midland
Ellis, Ruth.....2510 Ashman, Midland
Fields, Dozier N., Jr.....515 W. Main St., Midland
Gay, Harold H.....Dow Chemical Co., Midland
Goethe, Roy M.....110 W. Sugnet, Midland
Gordon, Harold L.....Dow Chemical Co., Midland
Grant, Robert.....116 Harold St., Midland
Grewe, Norman C.....347 E. Main St., Midland
Haberstroh, Colleen.....907 Eastman Rd., Midland
Harrigan, William E.....2706 Louanna, Midland
Heffernan, D. D.....402 Dartmouth, Midland
Holder, Benj. B.....Dow Chem. Co. Med. Dept., Midland
Hooper, Virgil R. (M).....4005 Orchard, Midland
Howe, Irvin M.....110 W. Sugne, Midland
Howell, Richard H.....2719 Ashman, Midland
Ittner, Martin J.....217 N. Saginaw Rd., Midland
Kramer, Chas. G.....P.O. Box 469, Midland
Linsenmann, Karl W.....2604 Manor Dr., Midland
Marks, V. A.....2706 Louanna, Midland
Maynard, Wm. A.....208 N. Fourth, Coleman
Meisel, Edward H., Jr.....Masonic Bldg., Midland
Moench, G. Fredk.....147 Center St., Sanford
O'Hora, Bernard A.....110 W. Sugnet Rd., Midland
Pike, Melvin H.....224 E. Larkin, Midland
Pollock, Robert.....Masonic Bldg., Midland
Poznak, Leonard A.....4005 Orchard Dr., Midland
Randolph, Stephen H.....201 E. Ellsworth St., Midland
Redmon, William B.....115 Jerome, Midland
Schoff, Charles A.....2706 Louanna, Midland
Shriner, John W.....902 E. Ashman, Midland
Stewart, Richard.....Dow Chemical Co., Midland
Thamarus, W. E., Jr.....5801 Highland Dr., Midland
Towsley, Wilbur D.....515 W. Main St., Midland
Ulmer, George.....4005 Orchard, Midland
Willison, Chas. H.....122 Townsend St., Midland
Yobst, G. James.....2719 Ashman, Midland

MONROE COUNTY MEDICAL SOCIETY (158)

Ames, Florence D.....2 W. Noble Ave., Monroe
Barrett, C. D., Sr.....Court House, Monroe
Blakey, Leonard C.....745 N. Monroe St., Monroe
Bond, Wm. W.....222 N. Monroe, Monroe
Burroughs, J. J.....745 N. Monroe St., Monroe
Cigany, Zoltan B.....Carleton
Clark, Bruce.....8308 Lewis Ave., Temperance
Douglas, Dale W.....17 E. First St., Monroe
Dranginis, E. J.....Monroe Hospital, Monroe
Ewing, Robt. T.....130 Maple Blvd., Monroe
Flanders, John P.....31 Washington St., Monroe
Frary, Reginald A.....423 E. Elm Ave., Monroe
Freud, John W.....1262 N. Macomb St., Monroe
Hensel, Hilda M.....12 E. 4th St., Monroe
Hnatchuk, Nicholas.....8079 Summerfield, Lambertville
Hunter, Marion A.....35 E. Front St., Monroe
Johnson, A. Esther.....751 N. Monroe St., Monroe
Kelso, S. Newton, Jr.....753 N. Monroe St., Monroe
King, John R.....12 East 4th St., Monroe
Laboe, Edward W.....725 N. Monroe St., Monroe
Lammers, Gerald P.....Ida
Liedel, Warren J.....725 N. Monroe St., Monroe
Loan, G. B.....429 N. Monroe St., Monroe
Long, Edgar C.....1310 N. Macomb St., Monroe
McGeoch, Reginald W.....718 N. Macomb St., Monroe
McMillin, John H.....423 E. Elm St., Monroe
Meier, Walter A.....106 East Front St., Monroe
Middleton, W. S.....219 W. Front St., Monroe
Pinkus, Hermann K. B.....12 E. 4th St., Monroe
Reisig, Albert H.....1 S. Monroe St., Monroe
Sabal, James.....8308 Lewis Ave., Temperance
Sisman, Bernard.....749 N. Monroe St., Monroe
Stephenson Diehl, Joy O.....15463 S. Monroe St., Monroe
Streicher, Robt. G.....729 N. Monroe St., Monroe
Tomlinson, Ledyard H.....8702 Main, Newport
Wagar, Spencer H.....31 Washington St., Monroe
Weeks, Vernon L.....326 N. Monroe, Monroe
Wilkins, Rolland W.....757 N. Monroe St., Monroe
Williams, Robt. J.....31 Washington St., Monroe

MUSKEGON COUNTY MEDICAL SOCIETY (162)

Allen, Richard T...768 W. Broadway, Muskegon Heights
Alt, William J.....Medical Arts Center, Muskegon
Anderson, Alfred J.....1371 Peck St., Muskegon
Askam, Ralph F.....4120 Nobhill Drive, Muskegon
Atkinson, Annie L.....1019 Green Creek Rd., North Muskegon
August, Ralph V.....72 E. Broadway, Muskegon Heights
Barnard, Helen S.....33 Diana, Muskegon
Barnes, James W.....102 Professional Bldg., Montague
Barnett, James M.....2416 Peck St., Muskegon Heights
Benedict, Arthur L., Jr.....22 W. Southern Ave., Muskegon
Bloom, Robt. E.....Medical Arts Center, Muskegon
Bolthouse, Robt. E.....2101 Peck St., Muskegon Heights
Bond, Wm. H.....1282 Arthur St., Muskegon
Boyd, D. R.....1735 Pech St., Muskegon
Boyd, Jack L.....450 W. Western Ave., Muskegon
Bradshaw, Park S.....Medical Arts Center, Muskegon
Bultema, James H.....Medical Arts Center, Muskegon
Busard, J. Max.....1200 Ransom, Muskegon
Carlson, James C. (A)....2453 Winchester Dr., Muskegon
Chapin, Wm. S. (A)....2136 Sanford, Muskegon Heights
Christophersen, J. W.....1276 Lake Shore Dr., Muskegon
Clapp, Henry W.....88 Strong Ave., Muskegon
Closz, Harold F. (L)....283 W. Western Ave., Muskegon
Clowater, Robert A.....Muskegon Co. San., Muskegon
Cohan, Sol G. (L).....1114 Second St., Muskegon
Crawford, John W.....Medical Arts Center, Muskegon
Cronick, Anne B.....1067 Pine St., Muskegon
Dart, Dorothy O.....3956 Whitehall Rd., Muskegon
Dasler, Adolph F.....1507 Peck St., Muskegon
De Leeuw, Henry.....4090 Higate Rd., Muskegon
Diskin, Frank.....309 Jackson Ave., Muskegon
Dykhuizen, H. D.....289 W. Western Ave., Muskegon
Ellis, Nicholas J.....1891 Lake Shore Dr., Muskegon
Engstrom, Albert D.....126 W. Colby, Whitehall
Farmer, John C.....Medical Arts Center, Muskegon
Fillingham, Enid.....932 Second St., Muskegon
Findorff, William G.....2059 Garland Dr., Muskegon
Fleischmann, Chas. B. (L).....250 W. Webster Ave., Muskegon
Fles, Robt. J.....1715 Peck St., Muskegon
Folsom, John D.....1706 Peck St., Muskegon
Frandsen, Philip H.....Medical Arts Center, Muskegon
Fugate, E. M.....Medical Arts Center, Muskegon
Gaikema, E. W.....605 First St., North Muskegon
Garber, Frank W.....235 Monroe Ave., Muskegon
Garrison, Robt. E., Jr.....126 W. Webster Ave., Muskegon
Giese, Douglas H.....204 Mich. Theatre Bldg., Muskegon
Gillard, James L.....1692 Peck St., Muskegon
Goltz, Martha H. (L).....Montague
Griffith, Robt. M.....68 E. Broadway, Muskegon Heights
Hack, Donald W.....Medical Arts Center, Muskegon
Hanley, Wm. J.....315 W. Clay Ave., Muskegon
Harryman, James E.....1200 Ransom St., Muskegon
Hartwell, Shattuck W.....450 W. Western Ave., Muskegon
Harvey, John G. Klemm.....Mercy Hospital, Muskegon
Heneveld, Edward H.....1603 Peck St., Muskegon
Heneveld, John (R).....Brasstown
Heneveld, Robt. G.....Medical Arts Center, Muskegon
Hennessy, Mary E. (A).....1200 Ransom St., Muskegon
Herald, Osbie J.....1075 Jefferson St., Muskegon
Holly, Leland E.....876 N. Second St., Muskegon
Holly, Leland E., II.....878 N. Second St., Muskegon
Hornbeck, Wm. J.....1200 Ransom St., Muskegon
Jesson, Robt. M.....1200 Ransom St., Muskegon
Johnston, E. H.....878 N. Second St., Muskegon
Joistad, Arthur H., Jr.....878 N. Second St., Muskegon
Kane, Thos. J. (M).....2086 Leimert Blvd., Oakland 2, Calif.
Kay, Cecelia S.....1533 Peck St., Muskegon
Keilin, Marie (L)....307 Liberty Life Bldg., Muskegon
Kerr, Howard J.....3054 Henry St., Muskegon
Kislov, Richard.....Medical Arts Center, Muskegon
Kleaveland, Ingram J.....1670 Peck St., Muskegon
Krenz, Marlin P.....Hackley Union Bk. Bldg., Muskegon
Lange, Eugene W.....337 N. Muskegon Blvd., Muskegon
Lapham, Landon M.....123 W. Colby, Whitehall
Lauretti, Emil J.....Medical Arts Center, Muskegon
Lauretti, Lawrence A.....936 Second Street, Muskegon
Laurin, Vilda S. (L)....Medical Arts Center, Muskegon
LeFevre, Geo. L., Jr.....726 Lake Dr., North Muskegon
LeFevre, Wm. M.....315 W. Clay Ave., Muskegon
Lemmen, Lloyd J.....315 W. Clay Ave., Muskegon
Leonard, A. T. (A).....1067 Pine St., Muskegon
Loder, Leonel L.....289 W. Western Ave., Muskegon
London, John L.....Lakeview
Lowry, Robt. A.....2336 Peck St., Muskegon Heights
Maire, Lewis E.....1633 Peck St., Muskegon
Mandeville, C. B. (L).....815 Hackley Union Bldg., Muskegon
Maples, Douglas E. (A).....Univ. Hosp. Med Center, Ann Arbor
Marrs, Jack Winton.....Med. Arts Bldg., Muskegon

McNair, John N.....936 Second St., Muskegon
Medema, Paul E.....1017 Sanford St., Muskegon
Meengs, Marvin B.....1725 Peck St., Muskegon
Miller, Phillip L.....1755 Peck St., Muskegon
Mulder, Lambertus.....Medical Arts Center, Muskegon
Mulligan, Allan W. (R).....123 West Larch Ave., Muskegon
Oden, C. L. A. (L).....Medical Arts Center, Muskegon
Parsons, Frank W.....205 Medical Arts Cen., Muskegon
Paterson, Lester C.....1095 3rd St., Muskegon
Peterson, Wm. F.....1094 Jefferson St., Muskegon
Pettinga, Frank L.....1603 Peck St., Muskegon
Prentice, Edwin W.....1017 Sanford St., Muskegon
Risk, Robt. D.....1160 Ransom St., Muskegon
Sanden, Howard V.....1095 Third St., Muskegon
Scholle, Norbert W.....2500 Peck St., Muskegon Hts.
Shebesta, Emil M.....Medical Arts Center, Muskegon
Smith, Robert E.....2327 Southwood, Muskegon
Stubbart, F. James.....2416 Peck St., Muskegon Hts.
Sweda, George P.....Health Dept., County Bldg., Muskegon
Swedenburg, Robt. D.....503 Liberty Life Bldg., Muskegon
Swenson, Leland L.....1706 Peck St., Muskegon
Tellman, H. Clay.....302 Med. Arts Center, Muskegon
Thieme, Siegfried W. (L)....12213 Stafford St., Ravenna
Thornton, Eugene S. (L).....301 Circle Dr., North Muskegon
Toy, Chas. M.....1067 Pine St., Muskegon
Tyler, Wm. H.....1435 Peck St., Muskegon
Vandervelde, C. A.....283 W. Western Ave., Muskegon
Vangelder, Wm. C.....Medical Arts Center, Muskegon
Voikos, Geo. A.....179 Strong Ave., Muskegon
Wagenaar, Edward H.....3054 Henry St., Muskegon
White, Warren G., Jr.....1624 Peck St., Muskegon
Wiersma, Silas C.....Medical Arts Center, Muskegon
Wildgen, Bernard C.....Medical Arts Center, Muskegon
Wilke, Carl A. (R).....Box 345, Montague
Williams, Edward V.....2501 Baker St., Muskegon Hts.
Young, Malcolm C.....1700 Clinton St., Muskegon

NEWAYGO COUNTY MEDICAL SOCIETY (166)

Crowe, Findlay C.....Rt. 1, Hunterbrook Rd., Yorktown Heights, N. Y.
Deur, Theodore R.....Grant
DeYoung, Jess.....111 W. Dayton, Fremont
Emerick, Robt. W.....Gerber Memorial Hosp., Fremont
Geerlings, Lambert J. (L)....20 N. Division St., Fremont
Klein, J. Paul.....P.O. Box 111, Fremont
Masters, Brooker L.....111 W. Dayton, Fremont
Moore, Hugh R.....Newaygo
O'Neill, John W.....Dist. Hlth. Dept 5, White Cloud
Painter, Robert.....Grant
Paxton, Robt. E.....40 W. Sheridan, Fremont
Pedelty, Norman.....Newaygo
Vanden Berg, Tunis.....20 N. Division Ave., Fremont
Veenschoten, Girard.....Hesperia

NORTHERN MICHIGAN MEDICAL SOCIETY (170)

Allen, Robt. F.....Lockwood Hospital, Petoskey
Alm, Bernhard T.....418 Petoskey St., Petoskey
Barnett, Robert F.....Lockwood Hospital, Petoskey
Blum, Benj. B.....Burns Clinic, Petoskey
Burns, Dean C.....Burns Clinic, Petoskey
Conkle, Guy C. (L).....Masonic Bldg., Boyne City
Conklin, Frederic L. (A).....Lockwood Gen. Hosp., Petoskey
Conti, Jos. B.....924 E. Mitchell St., Petoskey
Conway, Wm. S..... Burns Clinic, Petoskey
Crippen, Edward F. (A)....USO M. American Embassy, Port Au Prince, Haiti
Drake, Gerald.....511 Waukazoo, Petoskey
Duffie, Don H. (L).....Central Lake
Elliott, Dean C.....Burns Clinic, Petoskey
Foster, Bradford S.....226 Park, Petoskey
Frye, S. A.....Co. Burns Clinic, Petoskey
Gilfillan, Norris.....Burns Clinic, Petoskey
Grate, Lawrence E.....112 Clinton, Charlevoix
Hegener, Aloysius J.....Burns Clinic, Petoskey
Hodges, Roy W. (L).....Mackinaw City
Inyart, Jack R.....Mancelona
Kirk, Thomas R.....Burns Clinic, Petoskey
Kleyn, Kenneth A.....802 S. Main St., Cheboygan
Knecht, Richard A.....226 Park Ave., Petoskey
Larson, Walter E.....456 S. Huron, Cheboygan
Lawrie, Guy K.....Burns Clinic, Petoskey
Lentini, Nicholas.....Cheboygan
Litzenburger, A. F.....411 Pearl St., Boyne City
Lowery, Anthony J.....1538 Union Lake Rd., Union Lake
Martin, Robt. G.....103 Clinton, Charlevoix
Mateskon, Victor S.....Burns Clinic, Petoskey
Mayne, Frederick C. (L).....P.O. Box 387, Cheboygan
McKnight, Robt. D.....Burns Clinic, Petoskey
Mertz, Joanne E.....Burns Clinic, Petoskey
Park, Richard.....Burns Clinic, Petoskey
Pearson, Robt. E.....215 Water St., Boyne City
Postle, Jack R.....Burns Clinic, Petoskey
Rauch, Carl T.....420 Riverside Dr., Cheboygan
Reus, Leonard W.....226 Park Ave., Petoskey
Rodger, John R.....Bellaire
Saltonstall, G. B.....112 Clinton St., Charlevoix
Savory, John H.....East Jordon
Smith, James R.....Burns Clinic, Petoskey
Snide, Rollin F.....125 N. Main St., Cheboygan
Spengler, John R.....Burns Clinic, Petoskey
Stringham, James R. (L)....225 Backus St., Cheboygan
Taylor, Robt. M.....Burns Clinic, Petoskey
Van Dellen, Jerrian.....Water St., East Jordan
Webster, Jean H.....200 Sunset St., Petoskey
Weburg, Kathryn D.....Burns Clinic, Petoskey
Zipf, Charles.....Douglas Lake, Pellston

OAKLAND COUNTY MEDICAL SOCIETY (174)

Abbott, Vernon C.....1405 Pontiac State Bank, Pontiac
Adair, Robin.....800 S. Adams, Birmingham
Adams, Fredk. M.....800 S. Adams, Birmingham
Albert, Donald G.....1665 12 Mile Rd., Berkley
Albrecht, Robt. W.....549 Grixdale, Pontiac
Altshuler, Ira M.....17600 W. 8 Mile, Southfield
Anderson, Alexander S.....602 N. Woodward, Birmingham
Arena, Joseph A., Jr.....22928 Woodward Ave., Ferndale
Arnkoff, Harry.....218 Riker Bldg., Pontiac
Ashare, Raymond.....212 Riker Bldg., Pontiac
Aulie, Hal G.....420 Washington Sq. Bldg., Royal Oak
Awes, Lorraine E.....1411 Pontiac St. Bk. Bldg., Pontiac
Baier, Kurt.....862 S. Chester, Birmingham
Baker, Frederick A. (L)....4575 Motorway Dr., Pontiac
Bannow, Robt. J.....880 Woodward Ave., Pontiac

Barker, Chas. P.....214 Wabeek Bldg., Birmingham
Barker, Howard B.....880 Woodward Ave., Pontiac
Barnes, Donald J.....717 W. 10 Mile Rd., Pleasant Ridge
Barrett, John L.....800 S. Adams, Birmingham
Bauer, Bruce D.....22643 Stephenson Hwy., Hazel Park
Bauer, Edward G.....101½ N. Saginaw, Pontiac
Bauer, Ernest W., Sr.....22643 Stephenson Hwy., Hazel Park
Bauer, Ernest W., Jr.....22643 Stephenson Hwy., Hazel Park
Bauer, Franz.....740 Riker Bldg., Pontiac
Baylis, Shelby M.....538 Riker Bldg., Pontiac
Beaubien, Mark S. (A).....460 S. Glenhurst Dr., Birmingham
Beck, Otto O.....308 Wabeek, Bldg., Birmingham
Belknap, Warren F.....1809 S. Main St., Pleasant Ridge
Berg, Richard M.....880 Woodward Ave., Pontiac
Berger, Chas. J.....17220 W. 8 Mile Rd., Southfield
Berman, Bernard D.....1070 N. Telegraph Rd., Pontiac
Beyer, Hans A.....5675 Kolly Rd., Birmingham
Biedlingmaier, G. J.....2934 St. Jude Dr., Drayton Plains
Birkelo, Carl H.....4680 Dixie Hwy., Drayton Plains
Blackwell, Leonard H. (A).....34 Turner Ave., St. James, Manitoba, Can.
Blakeney, James R.....17 Utica Road, Pontiac 11
Blue, Jane.....19125 Hillcrest, Birmingham
Boesky, Malcolm D.....26789 Woodward Ave., Huntington Wds.
Boileau, Thornton I.....2075 E. 14 Mile Rd., Birmingham
Brookmyer, Robt. M.....1890 Southfield, Birmingham
Boucher, Roman E.....4200 N. Woodward Ave., Royal Oak
Bowers, Chas. L.....909 Woodward Ave., Pontiac
Brady, Neal C.....19040 Riverside Dr., Birmingham
Bronson, Wm. W.....28119 John R St., Madison Heights
Brown, Arnold L.....538 Riker Bldg., Pontiac
Bryant, F. W.....201 Washington Sq. Bldg., Royal Oak
Budd, Alexander S. Z.....3511 Lakecrest Dr., Birmingham
Buehrig, Robert.....5790 M 15, Clarkston
Bullard, R. W., Jr.....5790 M 15, Clarkston
Burger, John H.....1775 E. 14 Mile Rd., Birmingham
Burgess, Bruno.....3335 Harvard, Royal Oak
Burke, Chauncey G.....35 W. Huron St., Pontiac
Butler, Saml. A. (L).....Pontiac State Hosp., Pontiac
Byberg, Robt. A.....420 Washington Sq. Bldg., Royal Oak
Bylsma, Glenn Wm.....461 W. Huron St., Pontiac
Cabrera, G. P.....420 Wash. Sq. Bldg., Royal Oak
Calhoun, Ethel T.....707 Lakeview Ave., Birmingham
Calkins, Edwin A.....785 N. Lapeer Rd., Lake Orion
Campbell, K. N.....22928 Woodward Ave., Ferndale
Campbell, Malcolm D.....216 Wash. Sq. Bldg., Royal Oak
Carpenter, G. B., Jr.....622 N. Woodward, Birmingham
Carrow, Joyce M. (A).....3355 Barlyn Lane, Bloomfield Hills
Cefai, Anthony F.....310 Pontiac St. Bank, Pontiac
Chandler, Douglas.....189 Southfield Rd., Birmingham
Chandler, Jos. H.....1401 S. Washington, Royal Oak
Cheng, James T.....7350 Cooley Lake Rd., Union Lake
Childers, Merle A.....320 Walnut, Rochester
Christensen, Willis L.....109 W. 11 Mile Rd., Royal Oak
Christopher, M. E.....16860 Archdale Ave., Detroit
Clarke, Harriet A.....130 Seminole, Pontiac
Cline, Alan L.....4299 Roseberry, Drayton Plains
Cobb, Thos. H.....880 Woodward Ave., Pontiac
Cohen, Jack J.....17226 Adrian Rd., Southfield
Cohen, Lewis.....26602 Dundee Rd., Huntington Woods
Collins, Edward F., Jr.....35 W. Huron St., Pontiac
Condon, Frank J.....2401 E. Fourth, Royal Oak
Conner, Edward D.....3856 S. Miller Way, Birmingham
Conrad, Cecil D.....3027 N. Woodward Ave., Royal Oak
Cooley, Roy V.....318 S. Blvd. West, Pontiac
Cooper, Edmund L.....4200 N. Woodward Ave., Royal Oak
Cooper, Robt. J. (A).....256 Chippewa, Pontiac
Cooper, Robt. S.....3027 N. Woodward Ave., Royal Oak
Corrigan, K. E., Ph.D. (A).....Wm. Beaumont Hosp., Royal Oak
Coskey, Ralph J.....22100 Coolidge, Oak Park
Coucke, Henry O.....1148 S. Woodward Ave., Royal Oak
Crissman, Howell C.....22750 Woodward Ave., Ferndale 20
Crum, Roger E.....440 Riker Bldg., Pontiac
Cudney, Ethan B.....159 Marlborough, Pontiac
Cutler, Wm. M.....800 S. Adams Rd., Birmingham
Dahlgren, Carl W.....3023 Orchard Lake, Keego Harbor
Darling, C. G., Jr.....880 Woodward Ave., Pontiac
Darmstaetter, A. A., Jr.....227 Briggs Bldg., Birmingham
Dayton, Richard C.....427 W. University Dr., Rochester
Deighton, Murray N.....31549 W. 13 Mile Rd., Farmington
De Jongh, Edwin.....Pontiac Motor Div. GMC, Pontiac
Delaney, Malcolm J.....31549 W. 13 Mile Rd., Farmington
De Lawter, Hilbert H.....925 E. Maple Rd., Birmingham
Delevie, Jacob B.....640 Riker Bldg., Pontiac
Deutsch, Wm. L.....600 W. 11 Mile Rd., Royal Oak
De Vito, H. Louis.....3052 Sashabaw, Drayton Plains
Dobski, Edwin J.....909 Woodward Ave., Pontiac
Doerr, Louis E., Jr.....1413 S. Washington, Royal Oak
Donnelly, Wm. J.....246 S. Telegraph Rd., Pontiac
Dorsey, John M., Jr.....1890 Southfield, Birmingham
Drew, Dale R.....909 Woodward Ave., Pontiac
Duane, Wm. O.....29081 Dequindre Ave., Madison Hgts.
Dunlap, Gregg L.....2870 Orchard Lake Rd., Keego Harbor
Dunn, Lewis E.....3924 12 Mile Rd., Berkley
Durak, Gerald G.....1809 S. Main St., Pleasant Ridge
Durocher, Normand E.....28 N. Saginaw St., Pontiac
Dustin, Robt. W.....498 Merritt Lane, Birmingham
Ekelund, Clifford T.....35 W. Huron St., Pontiac
Elder, Edward E., Jr.....1116 Voorheis, Pontiac
Endress, Z. F., Jr.....440 Riker Bldg., Pontiac
Engel, John B. (R).....235 Linden Rd., Birmingham
Ensroth, Jack F.....1100 N. Woodward, Birmingham
Ervanian, Alexander.....4321 Meadow Lane, Birmingham
Esslinger, John O.....622 N. Woodward Ave., Birmingham
Evseeff, Geo. S.....2685 Amberly Rd., Birmingham
Farah, Jalil.....4385 Shenandoah, Allen Park
Farnham, Lucius A. (L).....622 Riker Bldg., Pontiac
Fink, L. Jerome.....28 N. Saginaw St., Pontiac 11
Fishman, Gordon R. A.....25721 Collidge, Oak Park 37
Fitzpatrick, F. J.....92 Spokane Dr., Pontiac
Flaharty, Wm. J.....25000 W. 10 Mile Rd., Southfield
Flick, John R.....120 W. Second St., Royal Oak
Forest, Jean L.....6549 Vernmoor, Troy
Fox, Ralph M.....855 Ridgewood Rd., Bloomfield Hills
Furlong, Harold A.....940 Riker Bldg., Pontiac
Gaba, Howard B.....17328 Ohio, Detroit 21
Gaber, Ben.....10851 W. 10 Mile Rd., Oak Park 37
Gadbaw, Jos. J.....23607 Farmington Rd., Farmington
Gaensbauer, F.....1965 N. Hammond Lake Dr., Pontiac
Gagliardi, R. A.....880 Woodward Ave., Pontiac
Galpin, Richard R.....525 Southfield Rd., Birmingham
Garber, Max J.....23603 Farmington, Farmington
Gariepy, Bernard F.....120 W. 11 Mile Rd., Royal Oak
Gates, Edward M.....35 W. Huron St., Pontiac
Gates, Joann M.....861 W. Huron St., Pontiac
Gatley, Cleo R.....97 N. Perry St., Pontiac
Gatley, Leslie W.....97 N. Perry St., Pontiac 14
Gehringer, Norman F.....880 Woodward, Pontiac
Geist, Edgar J., Jr.....1500 Walton Blvd., Rochester
Gell, James W.....35 W. Huron St., Pontiac
Gelstein, Lazaro.....909 Woodward Ave., Pontiac
Gerls, Frank B. (L).....602 Pontiac Bank Bldg., Pontiac
Gibson, Wellington C.....216 E. Commerce, Milford
Gill, Matthew J.....3115 Franklin Rd., Bloomfield Hills
Glen, Harold.....26559 Grand River, Detroit 40
Goerner, Dorothy M. (A).....1500 Henrietta, Birmingham
Goldstein, Herbert.....22100 Coolidge Hwy., Oak Park 37
Goode, Norman J., Jr.....1117 S. Washington Ave., Royal Oak

Gordon, Clayton H.....1099 Cranbrook Rd., Birmingham
Gradolph, Paul L.....23338 Woodward Ave., Ferndale 20
Grant, Wm. A. (L).....204 Hickory, Milford
Gray, Murphy H.....22100 Coolidge, Oak Park 37
Green, J. Donald.....217 Briggs Bldg., Birmingham
Green, Ralph S.....24100 Stratford, Oak Park 37
Green, Willard M.....28 N. Saginaw, Pontiac
Grekin, Thos. D.....603 W. 11 Mile Rd., Royal Oak
Gustafson, Everette.....35 W. Huron St., Pontiac
Gutterman, Meyer A.....25085 Coolidge Hwy., Oak Park 37

Haanes, Merle A.....909 Woodward Ave., Pontiac
Hackett, Danl. J.....782 Owego Dr., Pontiac
Hagman, George L. (L).....711 Rouge River Mannor, Medford, Oregon
Hague, Gilbert W.....739 Westview Rd., Bloomfield Hills
Halsted, Lee H.....32440 Grand River Ave., Farmington
Hammonds, Everett E. (A).....304 Barden Rd., Bloomfield Hills
Han, Maolin.....3358 Auburn Rd., Auburn Heights
Hardy, Geo. C. (L).....240 Oak Lane, R. 2, Rochester
Harmon, Lewis G.....1775 E. 14 Mile Rd., Birmingham
Harrold, John A.....293 Luther, Pontiac
Harvey, Campbell (L).....35 W. Huron St., Pontiac 15
Hassberger, John B.....620 N. Woodward Ave., Birmingham
Hathaway, Wm. S.....433½ Main, Rochester
Hayden, H. S., Ph.D. (A).....Wm. Beaumont Hospital, Royal Oak
Henderson, James E...765 Oakleigh Dr., Bloomfield Hills
Henderson, Worth W.....1307 S. Washington, Royal Oak
Hendren, Owen S...1408 Pontiac Bank Bldg., Pontiac 14
Henry, Colonel R.....125 W. Nine Mile Rd., Ferndale
Hensley, Chas. B.....248 S. Broadway, Lake Orion
Hershey, Lynn N.....1100 N. Woodward, Birmingham
Hoekman, Aben.....1740 Hamilton Dr., Rte. 3, Pontiac
Hopkins, Melvin, Jr.....900 Baldwin Ave., Pontiac 11
Hopkins, Wm. J.....22100 Coolidge, Detroit 37
Hruschka, Myroslaw.....Pontiac State Hospital, Pontiac
Hsu, John J.....Pontiac State Hospital, Pontiac
Hubert, John R.....880 Woodward Ave., Pontiac 14
Hull, Robt. P. (A).....2109 Northwood Blvd., Royal Oak

Ignatius, Aram A.....1915 E. Nine Mile Rd., Ferndale 20

Jacobi, Rodman C.....37 N. Washington, Oxford
James, Robt. E., Jr.....246 S. Telegraph, Pontiac
Jenkins, Henry L.....161 State St., Pontiac
Johnson, J. Frederic.....23760 N. Woodward, Pleasant Ridge
Jury, Donald B.....1126 S. Woodward Ave., Royal Oak

Katz, Sidney F.....17350 Dorset, Southfield
Kay, Sherman A.....1026 S. Washington, Royal Oak
Kazdan, Louis L.....13801 W. 9 Mile Rd., Oak Park 37
Keeffe, Eugene J.....880 Woodward Ave., Pontiac
Kemp, Felix J.....880 Woodward Ave., Pontiac
Kendrick, H. F., Jr.....35 W. Huron St., Pontiac
Kennison, Warren S.....250 Martin, Birmingham
Kerr, Edwin C.....32749 Franklin Rd., Franklin
Ketchum, Jesse.....26075 Woodward Ave., Huntington Woods
Kettler, Hans J.....25160 Edgemont Rd., Southfield
Klegman, Jerome H.....1401 S. Washington, Royal Oak
Klewicki, H. A.....22720 Woodward, Ferndale 20
Koehler, Wm. H.....4416 Far Hill Dr., Birmingham
Koltonow, Lawrence.....The Haven San., Rochester
Kozlow, Clifford S.....4274 N. Woodward, Royal Oak
Kozlow, L. Ange.....4274 N. Woodward, Royal Oak
Kozonis, Michael C.....880 Woodward Ave., Pontiac
Krane, Mark.....125 Alice Ave., Pontiac
Krecke, Charles F.....917 S. Reading Rd., Birmingham
Kresge, Bruce A.....1500 Walton Blvd., Rochester
Krieger, Norman N.....402 Union St., Milford
Kripke, Morton J.....2635 Coolidge, Berkley
Kuhel, Eli H.....24764 Southfield Rd., Southfield
Kuhn, Anne C.....4203 W. 13 Mile Rd., Royal Oak
Kuhn, Robt. E.....4203 W. 13 Mile Rd., Royal Oak
Kurnetz, Ruben.....10851 W. Ten Mile Rd., Oak Park

LaCore, Ivan A.....622 Riker Bldg., Pontiac
Ladd, James E.....1100 N. Woodward, Birmingham
Lahti, Paul T.....3600 W. 13 Mile Rd., Royal Oak
Lakke, Gordon W. (A)..St. Joseph Mercy Hosp., Pontiac
Lambert, Alvin G.....3027 N. Woodward, Royal Oak
Lambie, John S. (L).....280 Aspen Rd., Birmingham
Landry, Roy A.....Clarkston Prof. Center, Clarkston
Larson, Alvin R.....880 Woodward Ave., Pontiac
Laux, Philip J., Jr.....3027 N. Woodward, Royal Oak
Leach, Chas. A., Jr.....525 Southfield Rd., Birmingham
Leahy, Etta Link.....600 W. 11 Mile Rd., Berkley
Leichtman, R. R. (A).....461 W. Huron St., Pontiac
Levin, Murray B.....607 Pontiac State Bk. Bldg., Pontiac
Levine, Bernard.....25835 Parkwood Dr., Huntington Woods
Lewis, Sol M.....541 W. Oakridge, Ferndale
Lichtwardt, Harry E...247 N. Hunter Blvd., Birmingham
Lichtwardt, John R.....247 N. Hunter Blvd., Birmingham
Limia, Antonio G.....24360 Kenosha, Oak Park 37
Ling, T. W.....23607 Farmington Rd., Farmington
Linn, Herman J.....3601 W. 13 Mile Rd., Royal Oak
Lockwood, Clement E. (L).....113 Martha St., Holly
Longyear, Harold W.....3019 N. Woodward, Royal Oak
Lussos, A. S.....2707 Bridle Rd., Bloomfield Hills
Lutes, Byron B.....1401 S. Washington Ave., Royal Oak
Lyons, Robt. T.....336 Riker Bldg., Pontiac

Manz, Howard N.....23607 Farmington Rd., Farmington
Marcotte, Oliver J.....25000 W. Ten Mile Rd., Southfield
Margrave, Edmund D...306 W. 10 Mile Rd., Royal Oak
Margulis, R. Ralph.....1100 N. Woodward Ave., Birmingham
Markley, John M.....655 Ridge Road, Bloomfield Hills
Marra, John J.....461 W. Huron St., Pontiac
Marsa, Percy S.....540 E. Flint, Lake Orion
Martin, Francis A.....880 Woodward, Pontiac
Mason, Robt. J.....618 N. Woodward Ave., Birmingham
Mathes, Chas. J.....24414 Farmington Rd., Farmington
Mattson, Theo. M.....2075 E. 14 Mile Rd., Birmingham
Mayor, Raymond L.....1743 Beverly, Pontiac 19
McCain, French H.....628 N. Woodward Ave., Birmingham
McCandliss, D. H.....1030 Riker Bldg., Pontiac
McConkie, James P.....2425 W. Lincoln, Birmingham
McElroy, Wm. J., Jr.....420 East 4th St., Royal Oak
McEvoy, Francis J.....1715 Crooks Rd., Royal Oak
McHugh, James M.....20131 James Couzens, Detroit 35
McInerney, Thos. S.....2026 Laurome, Royal Oak
McLaughlin, J. H.....614 North Woodward, Birmingham
McNeill, Howard H.....161 State St., Pontiac
McPhee, Edward C.....909 Woodward, Pontiac
McWhirter, W. W...1401 S. Washington Ave., Royal Oak
Mehas, Constantine P.....300 Hickory Grove, Bloomfield Hills
Meinke, Herman A...817 E. Eight Mile Rd., Hazel Park
Meisner, Harry E.....25497 Hereford, Huntington Woods
Mercer, Frank A. (L).....3032 Morningview Tr., Birmingham
Milgrom, Sidney.....1229 S. Washington St., Royal Oak
Miller, Arthur C.....17988 Buckingham, Birmingham
Miller, Hazen L.....306 S. Washington Ave., Royal Oak
Miller, Hubert.....20233 Sorrento, Detroit 35
Miller, Sidney.....800 S. Adams, Birmingham
Mimura, James T.....1401 S. Washington, Royal Oak
Moloney, James C.....240 Daines, Birmingham
Monroe, John D.....1070 N. Telegraph Rd., Pontiac
Montgomery, J. C.....25717 Coolidge, Oak Park 37
Morin, Leonard A...13300 Oak Crest Court, Oak Park 37
Mueller, Elmer J.....1775 E. 14 Mile Rd., Birmingham
Mumby, Clinton J.....1115 Pontiac Bank Bldg., Pontiac
Munson, Harry L.....MacKenzie Clinic, Walled Lake

Murguz, Atalay M.....1625 E. Fourth St., Royal Oak
Nalepa, Eugene J.....880 Woodward Ave., Pontiac
Naz, John F.....5790 M 15, Clarkston
Nessel, Jack H.....35 W. Huron St., Pontiac
Netzel, Robert J.....1376 Eason St., Pontiac
Newcomb, Arnold B.....19834 Riverside Dr., Birmingham

Nichamin, Samuel J.....25085 Coolidge Hwy., Oak Park
Nickerson, Ivey D.....6245 Golfview Dr., Birmingham
Niederluecke, D. C.....1402 State Bank Bldg., Pontiac
Nosanchuk, Jos. I.....28 N. Saginaw St., Pontiac

Obenauf, Walter H.....Box A, Pontiac
O'Donnell, C. H.....23338 Woodward Ave., Ferndale 20
Oliphant, Wm. W. (A)..785 N. Lapeer Rd., Lake Orion
Olsen, Richard E.....900 Woodward Ave., Pontiac
O'Neill, James A.....5790 M 15, Clarkston
Ormond, John K. (L).....909 Woodward Ave., Pontiac
Ott, Harold A.....3019 N. Woodward, Royal Oak

Palmer, Hayden D.....35 W. Huron St., Pontiac
Patrick, Chas. I.....4721 Dixie Hwy., Drayton Plains
Pauli, Theodore H.....35 W. Huron St., Pontiac 14
Payton, Chas. F.....1719 Crooks Rd., Royal Oak
Pearce, James F.....306 S. Washington Ave., Royal Oak
Pear, Erwin G.....3027 N. Woodward Ave., Royal Oak
Peeke, Edwin S. (A).....
Pelletier, Chas. J.....1111 N. Campbell, Royal Oak
Pensavecchia, J. S.....3255 Walma Dr., Orchard Lake
Pierce, Wm. H.....800 S. Adams Rd., Birmingham
Piggott, Leonard R.....402 Union St., Milford
Pool, Robert, Jr.....1405 Pilgrim, Birmingham
Porter, Kenneth F.....2709 Bradway Blvd., Birmingham
Ports, Preston W.....33108 Grand River Ave., Farmington
Poznanski, W. A...1100 N. Woodward Ave., Birmingham
Prather, Frank W.....347 N. Main, Milford
Prevette, Isaac C.....10 W. Huron St., Pontiac 14
Pridmore, John.....493 Tilmore Dr., Pontiac

Quarton, Albert E., Jr.....542 Pilgrim Rd., Birmingham
Quinn, James R., Jr.....2070 W. Valley Rd., Bloomfield Hills

Ragins, Abner I.....909 Woodward Ave., Pontiac
Ranney, Kenneth I.....1100 N. Woodward, Birmingham
Raynale, George P. (L)..302 Wabeek Bldg., Birmingham
Read, James A.....610 N. Woodward, Birmingham
Rech, Wm. R.....Mackenzie Clinic, Walled Lake
Reid, Fred T.....49 W. 14 Mile Rd., Clawson
Richard, Robert E.....1719 Crooks Rd., Royal Oak
Richards, Wilson P.....201 Creson Bldg., Birmingham
Richardson, Robt. P.....25717 Coolidge, Oak Park 37
Riggs, Harry L.....31 Orchard Lake Ave., Pontiac
Riker, Aaron D.....35 W. Huron St., Pontiac
Roehm, Harold R.....319 Wabeek Bldg., Birmingham
Rowley, Laurie G.....4400 Dixie Hwy., Drayton Plains
Rupp, Edson C., Jr.....1775 E. 14 Mile, Birmingham
Rush, Alva D., Jr.....391 Hamilton, Birmingham
Ruskin, David S.....26021 Coolidge Hwy., Oak Park 37
Russell, Vincent P.....324 Washington Sq. Bldg., Royal Oak
Rutzky, Julius.....St. Joseph Mercy Hosp., Pontiac
Ruva, Jos. J.....4463 Dixie Hwy., Drayton Plains

St. John, Harold A.....35 West Huron St., Pontiac 15
Salisbury, C. S.....21580 Greenfield, Oak Park 37
Samborski, Anne H.....32316 Grand River, Farmington
Sanford, Glenn A.....1080 W. Huron, Pontiac
Sansone, Thos. J.....909 Woodward Ave., Rochester
Satersmoen, Theodore.....326 Riker Bldg., Pontiac
Schirle, Jos. L.....1116 Voorheis Rd., Pontiac
Schlecte, Eve L.....120 Second Ave., Rochester
Schlecte, I. Carl (A).....120 Second Ave., Rochester
Schmitt, Phillip E.....VA Hospital, Dearborn
Schoenfeld, Robt. J.....794 N. Woodward Ave., Birmingham
Scholes, Danl. R.....277 Pierce St., Birmingham
Schorling, Otis W.....302 Walnut, Rochester
Schuneman, Howard A.....23760 Woodward Ave., Pleasant Ridge
Schwartz, David.....33120 W. 12 Mile, Farmington
Schweinsberg, Stephen..5700 Pontiac Tr., Orchard Lake
Seaborn, Arthur J.....1413 S. Washington Ave., Royal Oak
Segula, Robt. L.....522 Riker Bldg., Pontiac
Selman, John H.....3306 Auburn Rd., Auburn Heights
Selman, Robert.....4565 Middleton Dr., Orchard Lake
Sempere, Chas. R.....522 Riker Bldg., Pontiac
Sewell, Geo. R.....411 W. 10 Mile Rd., Pleasant Ridge
Shadley, Maxwell L.....94 Ottawa Dr., Pontiac
Shaptini, Elias A.....Pontiac Motor Div. GMC, Pontiac 11
Shea, James Joseph.....440 Riker Bldg., Pontiac
Sheffield, Loren C.....35 West Huron St., Pontiac
Sheridan, F. Michael..1307 S. Washington St., Royal Oak
Siffring, Loren W.....114 W. University Dr., Rochester
Silvani, John.....909 Woodward Ave., Pontiac
Simpson, David F.....2761 Dorchester, Birmingham
Simpson, Edward K. (L).....2 Sunset Ave., Chatham, Ont., Canada
Simpson, John R.....800 S. Adams., Birmingham
Smith, Carleton A.....880 Woodward Ave., Pontiac
Smith, Donald S.....1006 Riker Bldg., Pontiac
Smith, Geo. E.....629 Washington Sq. Bldg., Royal Oak
Snyder, Arthur M.....23200 Woodward Ave., Ferndale 20
Somers, Donald C...2338 N. Woodward Ave., Royal Oak
Somerville, Wm. J.....145 Cambridge, Pleasant Ridge
Sosin, Allen.....23603 Farmington Rd., Farmington
Spademan, Loren C.....484 Warren Court, Birmingham
Spencer, Lloyd H...1219 S. Washington Ave., Royal Oak
Spoehr, Eugene L.....22832 Woodward Ave., Ferndale 20
Spohn, Earle W.....201 S. Center St., Royal Oak
Stageman, John C.....909 Woodward, Pontiac
Stahl, Harold F.....850 Lapeer Rd., Oxford
Stanley, Wm. F.....1148 S. Woodward, Royal Oak
Starker, Clarence T. (L).....80 E. Iroquois Rd., Pontiac
Steinberg, Norman N.....1223 S. Washington Ave., Royal Oak
Stolpman, A. K.....640 N. Woodward, Birmingham
Stratton, Donald P.....3601 W. 13 Mile Rd., Royal Oak
Stuecheli, Milton B.....1084 Willow Lane, Birmingham
Sutton, Palmer E.....30153 Bristol Lane, Birmingham 5
Swickle, Edward F.....17 S. Main, Clawson
Swingle, Norman E.....2075 E. 14 Mile Rd., Birmingham
Szappanyos, Bela.....923 S. Glenhurst, Birmingham
Szybko, Valentine.....4274 N. Woodward, Royal Oak

Tauber, Abraham.....28 N. Saginaw St., Pontiac
Teshima, John Y.....22720 Woodward Ave., Ferndale 20
Tomboly, Elmer Z.....Pontiac State Hosp., Pontiac
Torgerson, Thos. S.....794 N. Woodward Ave., Birmingham
Touma, Alfred.....26789 Woodward Ave., Huntington Woods
Trumpour, Donald J.....114 W. University Dr., Rochester
Ulgenalp, Attila O. (A).....Bloomfield Ter. Apt. 60, Pontiac
Ulveling, Robert A.....1207 Pontiac State Bank Bldg., Pontiac
Urwiller, K. L.....909 Woodward Ave., Birmingham

Vanden Berg, Kenneth.....35 W. Huron St., Pontiac
Van Zoren, Jay J.....937 Rock Spring Rd., Birmingham
Varbedian, Thos. G.....205 Wabeek Bldg., Birmingham
Vaught, Richard K.....2009 Crooks Rd., Royal Oak
Virga, Geo. M.....715 N. Main St., Royal Oak

Wagner, Ruth E.....201 W. 11 Mile Rd., Royal Oak
Wake, Douglas L.....1406 Woodsboro, Royal Oak
Wangner, William F.....1401 S. Washington, Royal Oak
Ward, W. Paul.....6631 Castle Drive, Birmingham
Warner, Fredk. O.....3245 Sashabaw Rd., Drayton Plains
Watson, Thos. Y.....640 N. Woodward, Birmingham
Weaver, Arthur (A).....91 Depot Line, Karachi, West Pakistan
Webber, Lynn F. (R).....7350 Cooley Lake Rd., Union Lake
Wegrzyn, George C.....2556 Endsleigh Dr., Birmingham
Wendling, Dieter.....1401 S. Washington, Royal Oak
Wessels, Robt. R.....302 Wabeek Bldg., Birmingham
Westfall, Edwin J.....1665 Twelve Mile Rd., Berkley
Westmaas, Wm. J.....364 Roanoke St., Birmingham
White, R. Hamilton.....384 Hamilton Ave., Birmingham
Wiant, John L.....258 Briggs Bldg., Birmingham
Wigent, Ralph D.....809 Pontiac State Bank Bldg., Pontiac
Wilkinson, Wm. C.....880 Woodward Ave., Pontiac
Williams, John P.....28 N. Saginaw, Pontiac 14
Willis, Maurice E.....28 N. Saginaw, Pontiac 14
Willis, Robt. L., Jr.....Wm. Beaumont Hosp., Royal Oak

Wilson, Albert C.....240 W. Daines, Birmingham
Woodward, Robert D.....1100 N. Woodward Ave., Birmingham
Ylvisaker, John R.....880 Woodward Ave., Pontiac
Young, Arthur R.....35 W. Huron St., Pontiac 15
Zackheim, Herschel S...13102 Talbot, Huntington Woods
Zimmerman, Walter J...32340 Sylvan Lane, Birmingham
Zinterhofer, J. J., Jr.....27621 Santa Barbara Dr., Lathrup Village
Zujko, Alphonse J.....880 Woodward, Pontiac

OCEANA COUNTY MEDICAL SOCIETY (178)

Davis, Linford J.....315 State St., Hart
Diehl, Clarence E., Jr.....204 N. Michigan Ave., Shelby
Flint, Chas. H. (A).....Box 797, Scobey, Mont.
Hasty, Willis A.....405 State St., Shelby
Johnson, C. A.....Box 6, New Era
Mullen, Warren R.....Pentwater
Ratzlaff, Alvin J.....219 State St., Hart
Robinson, Wm. G. (A).....Memorial Hospital Fatehgarh U. P., India
Vrbanac, John J.....RR 1, Hart
Wood, Merle G.....19 Courtland St., Hart

ONTONAGON COUNTY MEDICAL SOCIETY (182)

Archibald, Donald H.....Box 223, Ontonagon
Hogue, Harold B.....Ewen State Bank Bldg., Ewen
Lahti, Carl R.....800 Zinc St., Ontonagon
Strong, James P.....Ontonagon
Strong, Wm. F.....River St., Ontonagon
Vilardo, Ross.....White Pine

OTTAWA COUNTY MEDICAL SOCIETY (186)

Arendshorst, Wm.....121 W. 24th St., Holland
Balcer, Edwin A.....733 Larkwood Dr., Holland
Basel, Arthur R. (A)....41001 Seven Mile Rd., Northville
Bazuin, Chas. H.....313 N. River Ave., Holland
Beernink, Ernest H.....408 Fulton St., Grand Haven
Bloemendaal, Dirk C.....351 N. Main St., Zeeland
Bloemendal, W. B.....224 Washington St., Grand Haven
Boersma, Vernon L.....121 W. 24th St., Holland
Bonzelaar, Alvin.....144 West 26th, Holland
Boone, Cornelius E.....22 E. Central Ave., Zeeland
Bulthuis, Jerry E.....Jamestown
Chamness, James K.....121 W. 24th St., Holland
Clark, Nelson H.....17 W. 10th St., Holland
Cook, Carl S.....121 W. 24th St., Holland
DeVries, Harold G.....30 E. 9th St., Holland
DeVries, Peter J.....214 Washington St., Grand Haven
DeWitt, Donald E.....656 State St., Holland
DeYoung, Fredk. W.....Spring Lake
Dood, Arnold R.....598 Central Ave., Holland
Endean, Donald H.....121 W. 24th St., Holland
Frieswyk, Melvin J.....241 E. Main St., Zeeland
Groat, Frank L.....631 Franklin St., Grand Haven
Hager, Ralph .....Hudsonville
Hamelink, Marinus H.....700 W. 26th St., Holland
Harms, Herman P.....17 W. 10th St., Holland
Heard, Wm.....504 Park St., Grand Haven
Kearney, Jos. B.....121 W. 24th St., Holland
Kemme, Gerrit J.....R. No. 3, Zeeland
Kitchel, John H.....414 Franklin St., Grand Haven
Kitchel, Mary F. S.....414 Franklin St., Grand Haven
Kools, Wm. C.....194 W. 11th St., Holland
Kuipers, Siebe W.....93 E. 29th, Holland
Leppink, Richard A.....121 W. 24th St., Holland
Long, Chas. E. (L).....222 Franklin St., Grand Haven
Mahaney, Robert C.....65 W. 22nd St., Holland
McArthur, Peter A.....414 Franklin, Grand Haven
Moerdyk, Wm. J.....120 W. 14th St., Holland
Nykamp, Russel R.....111 E. Main St., Zeeland
Post, J. Jay.....Allendale
Rottschaefer, Wm.....17 W. 10th St., Holland
Rypkema, Willard M.....228 Washington, Grand Haven
Schaftenaar, R. H.....86 E. 28th St., Holland
Smit, George J.....Holland
Smit, Henry (A)..c/o Dr. George Smit, 121 W. 24th St., Holland
Stobbelaar, Robt. H.....107 S. 2nd, Grand Haven
Ten Have, Ralph.....1030 Orchard, Grand Haven
Ten Pas, Henry W.....293 W. 29th St., Holland
Timmerman, Eugene C.....Coopersville
Van Appledorn, C. J.....99 W. 23rd St., Holland
Vander Berg, Edwin E.....17 W. 10th St., Holland
Van Der Velde, Otto.....33 W. 8th St., Holland
Vande Waa, Alfred J.....152 E. Cherry St., Zeeland
Van Kolken, P. J.....509 Franklin Ave., Grand Haven
Veenstra, Bernard M.....Grand Haven
Ver Duin, John W.....223 Washington St., Grand Haven
Verkaik, Peter .....Hudsonville
Wells, Kenneth N.....119 W. Savidge St., Spring Lake
Westrate, Warren K.....17 W. 10th St., Holland
Westrate, Wm., Jr.....17 W. 10th St., Holland
Westrate, Wm., Sr. (L).....17 W. 10th St., Holland
Winter, John K.....726 State St., Holland
Winter, Wm. G., Jr.....630 State St., Holland
Yff, John H.....511 E. Central, Zeeland
Yonkman, Fredk F.....58 Pomeroy Rd., Madison, N. J.

SAGINAW COUNTY MEDICAL SOCIETY (190)

Ackerman, Gerald L.....124 S. Jefferson Ave., Saginaw
Albers, Millard J.....1227 N. Michigan Ave., Saginaw
Anderson, Wm. K.....845 St. Andrews Rd., Saginaw
App, Robt. G.....520 W. Genesee Ave., Saginaw
Bagley, Ulysses S. (R).....1401½ N. 6th St., Saginaw
Baker, Ophelia P.....125 Church St., Freeland
Baker, Thomas A.....125 Church St., Freeland
Barry, Jack L.....5121 Eldorado St., Bridgeport
Bass, Vernon V.....3322 Davenport, Saginaw
Berberovich, Thos. F.....2005 N. Michigan St., Saginaw
Bishop, Harry M.....705 Adams, Saginaw
Brender, Friedrich P.....Frankenmuth
Bruggers, Laurence.....1703 N. Michigan Ave., Saginaw
Bucklin, Robt. V.....830 Jefferson Ave., Saginaw
Bullington, Bert M.....2000 Court St., Saginaw
Burnett, Quinter M.....4385 Concord, Saginaw
Busch, Frank J.....1731 N. Michigan St., Saginaw
Butler, Milton G.....502 S. Jefferson Ave., Saginaw
Cady, Donald J.....2002 Court St., Saginaw
Cady, Fredk. J., Jr.....402 S. Jefferson Ave., Saginaw
Cady, Fredk. J.....402 S. Jefferson Ave., Saginaw
Cameron, Allan K.....1314 S. Jefferson Ave., Saginaw

Campbell, Lloyd A. (R).....335 Brockway Pl., Saginaw
Caumartin, Hugh T...1537 S. Washington Ave., Saginaw
Chisena, Peter R.....6221 Dixie, Bridgeport
Claytor, Archer A.....603 N. 3rd Ave., Saginaw
Cortopassi, Andre J.....326 S. Washington Ave., Saginaw
Cortopassi, Vital E.....324 S. Washington Ave., Saginaw
Cory, Chas. W.....1227 N. Michigan, Saginaw
Cresswell, T. A.....1236 N. Michigan, Saginaw
Cullen, Geo. (A).....2529 N. Clinton St., Saginaw
Curts, James H.....1205 N. Michigan Ave., Saginaw
Davenport, Clyde P.....703 W. Genesee, Saginaw
Derifield, R. S. (A).....25 Westbrook Ct., Saginaw
DeYoung, William A.....537 Millard St., Saginaw
Dowidat, Raymond W. (A).....608 Westfield, Saginaw
Durman, Donald C.....408 S. Jefferson Ave., Saginaw
Ely, Cecil W.....1820 Janes Ave., Saginaw
Ernest, Arthur R. (R).....Fieldmont, The Plains, Va.
Farley, Albert W.....1803 N. Michigan Ave., Saginaw
Fleschner, Thos. E.....Birch Run
Galsterer, Edwin C.....128 S. Jefferson Ave., Saginaw
Gamon, Adam E., II.....2004 Court St., Saginaw
Gardner, Joe H.....815 N. Michigan Ave., Saginaw
Gerard, Roy J.....1500 Gratiot, Saginaw
Gilmore, Robt. D.....234 W. Saginaw, Merrill
Goldner, Richard D.....1024 N. Michigan, Saginaw
Gomon, Louis D.....1203 N. Michigan Ave., Saginaw
Goodsell, John O.....132 Graham St., Saginaw
Goodsell, J. Orton, D.D.S. (A)..1607 Cedar St., Saginaw
Goodwin, J. E.....515 S. Jefferson, Saginaw
Griggs, Arthur P.....320 N. Michigan Ave., Saginaw
Hand, Eugene A.....126 N. Franklin St., Saginaw
Harvie, Lloyd C. (L).....112 S. Jefferson Ave., Saginaw
Heavenrich, Robt. M.....1107 Gratiot Ave., Saginaw
Heilbronn, Duane B.....1703 N. Michigan, Saginaw
Helmkamp, Herbert O.....333 S. Jefferson, Saginaw
Hereza, Valeriano D.....2031 N. Michigan Ave., Saginaw
Hester, Eustace G.....2031 N. Michigan Ave., Saginaw
Hill, Victor L. (R).....Box 234, Saginaw
Hodges, Frank V.....St. Lukes Hospital, Saginaw
Hubinger, H. L. (A)..501 2nd Nat'l Bank Bldg., Saginaw
Hyslop, Wm. T.....1610 Gratiot Ave., Saginaw
James, John W.....1021 W. Genesee St., Saginaw
Jarvi, Rudolph M.....1107 Gratiot Ave., Saginaw
Jiroch, Ralph S. (L).....202 Wiechmann Bldg., Saginaw
Johnstone, Kermit T.....Box 2272, S. Side P.O., Saginaw
Jordan, Leo A.....1524 E. Genesee St., Saginaw
Kerr, Wm. B.....300 S. Michigan St., Saginaw
Kerwin, George R.....1827 N. Michigan Ave., Saginaw
Keyes, James T.....10222 Maple Rd., Birch Run
Kickham, Edward F.....705 Adams St., Saginaw
Kleekamp, Herbert G.....1005 Gratiot Ave., Saginaw
Kleinschmidt, Earl E.....3625 Webber St., Saginaw
Kolesar, Robt. C.....1005 Gratiot, Saginaw
Kowals, Francis V.....Med. Dir. Chec. Serv. GMC, Saginaw
Kretschmer, Thos. V.....1232 N. Michigan Ave., Saginaw
Lassignal, Jules C.....2125 Bay St., Saginaw
Ling, Kenneth C.....Hemlock
Lohr, Oliver W.....Box 806, Saginaw
Lohr, Thos. O.....1135 N. Michigan Ave., Saginaw
Lonergan, Tad E.....2125 Bay St., Saginaw
Love, Neil W.....505 W. Tuscola, Frankenmuth
Luger, Fredk. E.....303 N. Jefferson Ave., Saginaw
Lurie, Robt. I.....2525 S. Washington Ave., Saginaw
Mahaney, Thos. P.....3521 State St., Saginaw
Manning, John E.....815 N. Michigan Ave., Saginaw
Manning, John W., III.....705 Adams, Saginaw
Markey, Francis L.....808 N. Michigan Ave., Saginaw
Markey, Jos. P.....808 N. Michigan Ave., Saginaw
Martzowka, Wm. P.....415 W. Genesee St., Saginaw
Mason, Wm. G.....1107 Gratiot Ave., Saginaw
Matthews, Harry C.....1227 N. Michigan Ave., Saginaw
Maurer, John.....1109 Elmdale, Saginaw
Mayne, Harold E.....120 N. Michigan, Saginaw
McKinney, A. R. (L)....330 S. Washington St., Saginaw
Meyer, Henry J. (L).....6243 Dixie Hwy., Bridgeport
Mikan, V. Robert.....3900 Holland Rd., Saginaw
Miller, Glenn F.....1311 N. Michigan, Saginaw
Moon, A. Raymond (L).....1008 Hancock, Saginaw
Morgrette, Leonard J.....603 S. Jefferson Ave., Saginaw
Mudd, Richard D.....Chev. Grey Foundry, Saginaw
Murphy, Albert P.....303 N. Michigan Ave., Saginaw
Murray, Morris J.....603 S. Jefferson Ave., Saginaw
Murphy, Richard T., D.D.S. (A).....1718 N. Michigan, Saginaw
Nelson, Oscar A.....3324 Davenport, Saginaw
Nelson, Robert E.....1500 Weiss St., Saginaw
Noble, Paul R.....1447 N. Harrison, Saginaw
Northway, Robt. O.....124 S. Jefferson Ave., Saginaw
Novy, Frank O.....420 S. Jefferson Ave., Saginaw
Olson, Carl P. (A).....2505 Court St., Saginaw
Ostrander, Frank W. (L).....Freeland
Phillips, Homer A.....124 S. Jefferson Ave., Saginaw
Pietz, Fredk.....221 N. Michigan Ave., Saginaw
Potvin, Clifford D. (A).....161 Heyn St., Saginaw
Powers, Robt. F.....142 Wylie, Saginaw
Prather, Perry E.....1227 N. Michigan Ave., Saginaw
Prinsell, Gustave G. (M).....P.O. Box 33, Sierra Leone, W. Africa
Reimers, Gerald F.....4046 Hess St., Saginaw
Richards, Ned W.....3518 State St., Saginaw
Richter, Harry J.....705 Adams St., Saginaw
Roggen, Ivan J.....1227 N. Michigan, Saginaw
Roland, C. B.....1502 Wadsworth, Saginaw
Ruskin, Dave B.....120 N. Michigan Ave., Saginaw
Ryan, Richard S.....1315 S. Washington Ave., Saginaw
Sample, John T. (L).....Box 2254, Saginaw
Sargent, Donald V.....1703 N. Michigan Ave., Saginaw
Schneider, A. J. N.....509 S. Jefferson Ave., Saginaw
Schultz, Frank R.....147 W. Broad St., Chesaning
Sharp, Martin C.....1803 N. Michigan Ave., Saginaw
Shek, John L.....808 N. Michigan Ave., Saginaw
Sheldon, Suel A.....124 S. Jefferson, Saginaw
Sherman, John W.....4490 Brockway, Saginaw
Skowronski, C. A.....1401 E. Genesee St., Saginaw
Slade, Homer G.....1520 N. Michigan Ave., Saginaw
Speer, David L.....2525 Wesley Dr., Saginaw
Stander, Aaron C.....1411 Court St., Saginaw
Stewart, Geo. W.....1902 Janes St., Saginaw
Sulfridge, Hugh L., Jr.....512 N. Michigan Ave., Saginaw
Thompson, Arthur B.....2144 Ottawa St., Saginaw
Tiedke, Gunther E.....120 N. Michigan Ave., Saginaw
Toshach, Clarence E.....3655 Schust Rd., Saginaw
Toteff, Robert J.....2 Chippewa Court, Saginaw
Tramitz, Melvin E.....Saginaw Gen. Hosp., Saginaw
Underhill, Wm. G.....214 Trier, Saginaw
Vincent, John H.....2608 Wesley, Saginaw
Vitu, Robert L.....808 N. Michigan Ave., Saginaw
Volk, Vladimir K...Saginaw Co. Hosp., Box 65, Saginaw
Wallace, Herbert C. (M).....118 S. Oakley, Saginaw
Webb, Walter L.....1502 Wadsworth, Saginaw
Weiss, Arno W.....3521 State St., Saginaw
Westlund, Norman.....349 S. Weadock, Saginaw
Wright, Edwin M.....1311 N. Michigan, Saginaw
Yntema, Stuart.....331 S. Jefferson Ave., Saginaw

ST. CLAIR COUNTY MEDICAL SOCIETY (194)

Bailey, Robt. S.....2425 Military St., Port Huron
Banting, Kenneth C...403 Peoples Bk. Bldg., Port Huron
Barss, J. A.....1209 Tenth St., Port Huron
Battley, John C. S.....1216 6th St., Port Huron
Beck, Frank K.....2902 Military St., Port Huron
Beer, Jos. F.....104 N. Riverside Ave., Saint Clair
Bennett, Wm. G.....210 S. Main St., Yale
Borden, Chas. L.....313½ Huron Ave., Port Huron
Bottomley, Thos. H., Jr.....1102 Sixth St., Port Huron
Boughner, Walter H.....325 Pleasant St., Algonac

Bovee, Marion E. (L).....2208 Stone St., Port Huron
Bowden, Wm. S.....130 Washington, Marine City
Bridge, Ezra V.....416 Edison Blvd., Port Huron
Brush, Howard O.....3307 Walnut St., Port Huron
Burke, Colman J...411 Andrew Murphy Dr., Port Huron
Cantwell, John D., Jr.....2425 Military St., Port Huron
Carrie, Robert G. (A).....837 Marconi, Montebello, California
Chafty, Mahmoud.....2425 Military St., Port Huron
Cleland, Wm. D., Jr.....Medical Arts Bldg., Port Huron
Clifford, Robt. P.....506 S. Riverside Dr., St. Clair
Clyne, Benj. C.....103 N. Main St., Yale
Cooper, Thos. H. (L).....911 Lapeer Ave., Port Huron
Coury, John J., Jr.....1209 Tenth St., Port Huron
Davison, Wm. T.....2425 Military St., Port Huron
Dinnen, Wm. J., Jr.....2425 Military St., Port Huron
Douvas, Nicholas G.....311 Pine St., Port Huron
Dupuis, Jean Paul.....4251 Peck Rd., Port Huron
Fitzgerald, E. W., Jr.....1102 Sixth St., Port Huron
Franke, Armin T.....2425 Military St., Port Huron
Fulton, Harold E., Jr.....2425 Military St., Port Huron
Gerrits, James F.....St. Clair Clinic, St. Clair
Gholz, Anthony C.....Medical Arts Bldg., Port Huron
Gilmore, John R.....317 Mich. Bank Bldg., Port Huron
Gonzalez, Carlos F.....1605 Divison Rd., St. Clair
Hazledine, H. J.....4406 Gratiot Ave., Port Huron
Holcomb, Russell J.....140 S. Market, Marine City
Hoyt, Chas. N. (A).....1325 Roslyn, Grosse Pte. Woods
James, Freburn L.....1209 Willow St., Port Huron
Johnston, Thomas C.....2425 Military St., Port Huron
Kahn, Oscar B.....Capac
Kesl, Geo. M. (L).....316 Sperry Bldg., Port Huron
Kirban, Harry N.....5500 Lakeshore Rd., Port Huron
Kirker, Findlay O.....1325 Michigan Ave., Marysville
Koch, Donald A.....2425 Military St., Port Huron
Lauridsen, James.....621 River St., Port Huron
Le Galley, K. B.....Persian Gulf, Awali, Bahrain
Licker, Reuben R.....2425 Military St., Port Huron
Ludwig, Claude A.....916 Seventh St., Port Huron
Ludwig, Fredk. E.....916 7th St., Port Huron
Lugg, Robt. M.....619 River St., Port Huron
MacPherson, C. A. (R).....
Martin, Clyde S. (R).....Whispering Waters, Bldg. D 4, Apt 2, Winter Park, Fla.
Mayhew, Harry E.....721 N. Ninth St., St. Clair
McColl, Duncan J. (L).....917 Prospect Pl., Port Huron
Meza, Pedro.....902 Tenth, Port Huron
Miller, John M.....1010 Griswold St., Port Huron
Mohney, Glenn E.....311 Pine St., Port Huron
Morris, Alvin N.....621 River St., Port Huron
Novak, Walter S.....310 E. Water St., Port Huron
Patterson, Dorsey W.....622 Huron Ave., Port Huron
Pollock, Donald A. (A)....5014 Lakeshore, Port Huron
Raftery, Michael.....2425 Military, Port Huron
Rowe, Robt. E.....3360 W. Water St., Port Huron
Sanderson, Jos L.....515 Pine St., Port Huron
Sands, Geo. E.....3227 Gratiot Ave., Port Huron
Schaefer, Waldo A.....302 Mich. Bank Bldg., Port Huron
Selby, Clarence D.....1916 Military St., Port Huron
Serniak, John A.....104 S. Main St., Yale
Shoudy, Elmore D.....902 Tenth Ave., Port Huron
Sites, Edgar C.....1209 Tenth St., Port Huron
Tisdel, James H.....310 E. Water St., Port Huron
Tomsu, Glenn F.....310 E. Water St., Port Huron
Townley, Chas. O.....1209 Tenth St., Port Huron
Ulmer, Arthur H., Jr.....1209 Tenth St., Port Huron
Ware, J. Raleigh.....3107 24th St., Port Huron
Walker, Sidney C.....1209 Tenth St., Port Huron
Wass, Henry C.....115 Adams, St. Clair
Wetzel, John O. (R).....700 Intercostal Dr., Ft. Lauderdale, Fla.
Yost, Kenneth W.....1305 Gratiot Ave., Marysville
Youngs, John A.....718 Griswold St., Port Huron

ST. JOSEPH COUNTY MEDICAL SOCIETY (198)

Berg, Lawrence A.....106 E. Chicago Rd., Sturgis
Bradley, D. E.....428 Burr Oak Rd., Colon
Braham, Wilbur G.....111 S. Monroe, Sturgis
Brothers, Paul L.....104 S. Lakeview, Sturgis
Brunson, Allen E.....206 E. West St., Sturgis
Evans, Robt. H.....111 S. Monroe St., Sturgis
Fiegel, S. Albert.....111 S. Monroe, Sturgis
Fortner, Roscoe J.....137 Portage Ave., Three Rivers
Gillespie, Eleanor M.....Rt. 2, Sturgis
Hill, Robert V.....117 Spring St., Three Rivers
Jacobowitz, John M.....Lincoln at Millard, Three Rivers
Lamb, Harry.....107 John D. Ct., Sturgis
Lepard, Olin L.....Knollwood Dr., Rt. 1, Sturgis
Miller, Chas. G. (L).....106 W. Chicago St., Sturgis
O'Dell, Charles W.....117 Spring St., Three Rivers
O'Dell, John H., Jr.....117 Spring St., Three Rivers
Olney, Harold E.....Leonidas
Pennington, Harry C.....118 S. Kalamazoo, White Pigeon
Penzotti, Stanley C.....117 Spring St., Three Rivers
Porter, Clark G.....226 East St., Three Rivers
Schimnoski, D. R.....Three Rivers Med. Clin., Three Rivers
Shaw, Geo. D.....117 Spring St., Three Rivers
Sheldon, John P.....206 E. West St., Sturgis
Smith, Robt. D.....Colon
Springer, Russell A. (R).....Rt. 2, Sturgis
Storer, William R.....St. Jos. Co. Health Dept., Centerville
Weisheit, H. R. .....Rt. 1, Sturgis
Zimont, Chas. R.....Constantine
Zimont, Raymond D.....Constantine

SANILAC COUNTY MEDICAL SOCIETY (202)

Cripps, James R.....Marlette
Duvall, Dorothy V.....817 Patterson Ave., Bay City
Ford, Frances A.....2683 S. Lakeshore Rd., Applegate
Gift, Weldon A.....Marlette
Groat, Gerald .....Deckerville
Hart, Robt. K.....Croswell
Jayson, Michael H.....6294 E. Marlette St., Marlette
McCrea, John W.....Marlette
McGunegle, Keate T.....Sandusky
Muir, Neil.....Croswell
Seager, M. Cole.....Brown City
Smith, Duane E.....Brown City
Tweedie, G. Evans.....Sandusky
Tweedie, S. Martin.....Sandusky
Webster, J. C. (L).....Marlette
Winfield, Raymond J.....3014 Main St., Marlette

SHIAWASSEE COUNTY MEDICAL SOCIETY (206)

Austin, Eugene S.....1260 Ada St., Owosso
Arnold, Alfred L. (L).....Route 1, Ovid
Bach, Norman F.....113 E. Williams, Owosso
Bjarnesen, Walter.....Durand Medical Clinic, Durand
Breedlove, Dane.....Durand
Brown, Richard C.....658 First St., Owosso

Buzzard, Walter D.....Chesaning
Chipman, Elwood M (R).....502 W. Williams, Owosso
Ford, Wm. J. A., Jr.....113 E. Williams St., Owosso
Forsyth, Henry T.....Chesaning
Graves, James H.....511 W. Main St., Owosso
Gurden, Elizabeth A. L.....113 E. Williams St., Owosso
Harroun, John E.....105 N. Water St., Owosso
Harroun, R. V.....Matthews Building, Owosso
Hofstra, John.....Owosso
Hoshal, Verne L.....104 W. Clinton, Durand
Lieber, Robt. W.....103 E. Clinton St., Durand
MacGregor, John F.....113 E. Williams St., Owosso
McKnight, Edwin R.....320 N. Washington St., Owosso
Merz, Walter L.....307 N. Ball, Owosso
Moore, Phillip J.....113 E. Williams, Owosso
Morin, Richard.....Durand
Park, James H.....812 Bradley St., Owosso
Phillips, Rolland.....Matthews Bldg., Owosso
Pochert, Rolland C.....1254 N. Shiawassee, Owosso
Richards, Chester J.....213 Mercer, Durand
Sahlmark, Jos. F.....812 Bradley St., Owosso
Sauer, Peter.....113 E. Williams, Owosso
Trick, O. L.....Durand
Weinkauf, Wm. F.....Corunna
Weston, Claude L.....Matthews Bldg., Owosso
Wickstrom, Geo. B.....529 Clark Ave., Owosso

TUSCOLA COUNTY MEDICAL SOCIETY (210)

Anderson, Norma.....Caro
Ballard, James H.....Cass City
Cole, Versa V.....Lock Box A, Caro
Dickerson, Willard W.....Caro State Hosp., Caro
Donahoe, Harold T.....Pleasant Home Hosp., Cass City
Elmendorf, E. N., II.....Vassar
Flett, Richard O.....Millington
Gilbert, Donald E.....Mayville
Gugino, Frank J.....Reese
Howlett, Robt. R.....624 W. Frank St., Caro
Loree, Joseph E.....Caro State Hospital, Caro
Merrill, Elmer H.....147 W. Lincoln St., Caro
Miles, Edward J.....Caro
Nigg, Herbert L.....Caro
Savage, Lloyd L.....147 W. Lincoln, Caro
Swanson, Ewald C.....220 N. Main, Vassar
Von Renner, Otto (L).....837 W. Huron St., Vassar

VAN BUREN COUNTY MEDICAL SOCIETY (214)

Boothby, Carl F.....Hartford
Boothby, Fredk. M.....Lawrence
Boothby, Paul.....Lawrence
Bope, Wm. P. (L).....Decatur
Cooper, Jos. E.....417 W. Monroe St., Bangor
Davis, James M.....311 Center St., South Haven
Diephuis, Bert.....511 Huron St., South Haven
Dillon, Thos. J.....RFD 3, Paw Paw
Gano, Avison.....417 Monroe St., Bangor
Groustra, Glenn R.....511 Huron St., South Haven
Holm, Leo H.....Gobles
Itzen, John F.....P.O. Box 128, South Haven
Johnson, Harold C. A.....304 Oak St., Paw Paw
Kleber, John A.....311 Center St., South Haven
Korpi, Steven.....1865 Evergreen Park, Decatur
Lawther, John.....P.O. Box 191, Hartford
Loomis, Frank J.....Paw Paw
Millard, David.....Paw Paw
Morgan, Dale K.....403 Phoenix St., South Haven
Parks, Arthur E.....Lawton
Spalding, R. W.....Box 187, Bloomingdale
Stagg, Adelbert L.....9 N. Maple St., Martford
Stagg, G. Lee.....Box 307, Hartford
Stagg, Ruth E. A.....Box 38, Hartford
Steele, Arthur H.....Paw Paw
Sundin, Paul W.....Decatur
Ten Houten, Charles.....Paw Paw
Terwilliger, Edwin H.....326 Michigan Ave., South Haven
Urist, Martin J.....R.D. 1, South Haven
Young, Wm. R. (L).....Lawton

WASHTENAW COUNTY MEDICAL SOCIETY (218)

Abell, Joseph M., Jr. (A).....2329 Pinecrest, Ann Arbor
Abrams, Gerald D. (M).....2411 Ross Rs., Apt. 102, Silver Springs, Md.
Alford, Barry H.....385 N. Mill, Plymouth
Aliferis, Peter (A).....319 Gralake, Ann Arbor
Allen, Arthur W.....5 Harvard Pl., Ann Arbor
Allen, Richard J.....University Hospital, Ann Arbor
Anderson, David G.....627 Westwood, Ann Arbor
Anderson, P. C. (A).....University Hosp., Ann Arbor
Angell, David C. (A).....2603 Pittsfield Blvd., Ann Arbor
Armstrong, Dale P. (A).....305 Vineyard St., Durham, N. C.
Atchison, Russell M.....501 W. Dunlap, Northville
Badgley, Carl E.....1313 E. Ann St., Ann Arbor
Bailey, Robt. W.....University Hosp., Ann Arbor
Baird, Walter M. (A).....2260 Parkwood, Ann Arbor
Banghart, Norman L.....1950 Manchester Rd., Ann Arbor
Barker, Paul S. (R).....Box 87, Bonnots Mill, Mo.
Barlow, Peter P.....2301 Manchester Rd., Ann Arbor
Barlow, R. Craig.....326 N. Ingalls St., Ann Arbor
Barnwell, John B. (R).....R.F.D. 2, Blairstown, N. J.
Barron, Walter L. (A).....280 Gralake Ave., Ann Arbor
Barss, Wm. A.....525 W. Cross St., Ypsilanti
Bartholomew, Lee E.....4633 Kresge Bldg., U.M., Ann Arbor
Bass, Thos. J.....201 S. Hamilton, Ypsilanti
Bassow, Paul H.....St. Joseph Hosp., Ann Arbor
Bauer, Gerhard H.....2015 Manchester Rd., Ann Arbor
Bauer, Jere M.....1313 E. Ann St., Ann Arbor
Beatty, James B. (M).....85 Red Cloud Rd., Ft. Rucker, Ala.
Beckett, Morley B.....207 Fletcher Ave., Ann Arbor
Behrman, Saml.....1313 E. Ann St., Ann Arbor
Beierwaltes, Wm. H.....U.M. Medical Center, Ann Arbor
Beljan, John R. (A).....Box 2662, 7373 USAF Hq., A.P.O. 10, New York, N. Y.
Bell, Margaret (L).....15 Geddes Heights, Ann Arbor
Belser, Walter.....2101 Woodside Rd., Ann Arbor
Bender, Leonard F.....1313 E. Ann St., Ann Arbor
Bentley, Fredk. E.....851 S. Main St., Plymouth
Berry, Robert E. L.....Univ. Hosp., Ann Arbor
Bicknell, John N.....703 First Natl. Bldg., Ann Arbor
Bicknell, Joseph M. (A).....97 Valhalla Dr., Ann Arbor
Bingman, Kenneth R. (A).....2265 Pittsfield Blvd., Ann Arbor
Bird, H. Waldo, Jr.....1313 E. Ann St., Ann Arbor
Bishop, Ronald C.....1011 Lincoln Ave., Ann Arbor
Boblitt, Delbert E.....St. Joseph Mercy Hosp., Ann Arbor
Boles, Roger (A).....1430 Hatcher Crescent, Ann Arbor
Bosch, Jan K.....302 W. Main St., Northville
Botch, Edmund S.....115½ E. Liberty St., Ann Arbor

Botsford, James H.....109 N. Main St., Chelsea
Bourne, Charles W. (A).....Univ. Hosp., Ann Arbor
Bourne, Richard B. (A).....Univ. Hosp., Ann Arbor
Brandt, Ralph L.....326 N. Ingalls, Ann Arbor
Breakey, Barry A.....1029 Pine Tree Dr., Ann Arbor
Brewer, Wilson K.....720 E. Catherine St., Ann Arbor
Briere, Russell O. (A).....2816 Brandywine Dr., Ann Arbor
Brody, Gerald L.....1207 Chapel Ct., Ann Arbor
Brown, Garland R. (A)....Univ. Medical Ctr., Ann Arbor
Brown, Philip N.....Northville State Hosp., Northville
Brown, Wm. E., III.....1517 Granger Ave., Ann Arbor
Brownell, Robt. D. (A).....2424 Yost Blvd., Ann Arbor
Bryan, George C.....2547 Ellis Rd., Ypsilanti
Bryant, H. C.....425 E. Washington, Ann Arbor
Buchanan, Robert A.....381 Orchard Hills, Ann Arbor
Bull, Frances E.....Univ. Hosp., Ann Arbor
Bush, Jack L. (A)....St. Jos. Mercy Hosp., Ann Arbor
Butler, Gerald E.....5 Dover Ct., Ann Arbor

Cabrera, Joseph A. (A)....1002 Cornwell Pl., Ann Arbor
Cameron, Hugh A.....425 E. Washington St., Ann Arbor
Campbell, Darrell A.....617 Stratford, Ann Arbor
Campbell, K. G. (A).....1904 Northwood Apts., Ann Arbor
Carbeck, Robt. B. (A)....2315 Walter Drive, Ann Arbor
Carr, Edward A., Jr.,.....Dept. of Pharm., U. of M., Ann Arbor
Carroll, Catherine.....1130 Hill St., Ann Arbor
Carron, Dean P.....425 E. Washington, Ann Arbor
Cassidy, James T. (A).....618 Westwood, Ann Arbor
Cerny, Joseph A. (A)....University Med. Ctr., Ann Arbor
Child, Chas. G., III.....Univ. Hosp., Ann Arbor
Ching, Alfred Y. T.....18471 Haggerty Rd., Northville
Christopher, Robt. P. (A).....Univ. Hosp., Ann Arbor
Clifford, Mary Ellen.....Univ. Hosp., Ann Arbor
Clyde, Ensign E.....1246 Sheridan Ave., Plymouth
Cohan, Bruce E. (A).....Univ. Hosp., Ann Arbor
Coller, Fredk. A. (L).....St. Josephs Mercy Hosp., Ann Arbor
Conn, Jerome W.....200 Orchard Hill Dr., Ann Arbor
Conwell, John W. (A).....Univ. Hosp., Ann Arbor
Corssen, Gunter.....1218 City Dr., Ann Arbor
Crook, Clarence E.....2112 Wallingford, Ann Arbor
Cummings, Howard H. (L).....326 N. Ingalls St., Ann Arbor
Curtis, Arthur C.....1313 E. Ann St., Ann Arbor
Curtis, Edward G.....1825 W. Stadium Blvd., Ann Arbor

Dafoe, Charles A.....1204 Republic Bldg., Denver 2, Colo.
Davenport, Fred M.....1038 Martin Pl., Ann Arbor
Davey, Winthrop N.....1405 E. Ann St., Ann Arbor
Davis, James H.....502 Rosemont, Saline
Deatrick, Richard W.....2940 Hickory Lane, Ann Arbor
Deitz, Michael R. (A)....1603 Abbott Ave., Ann Arbor
DeJong, Russell N.....1313 E. Ann St., Ann Arbor
Demuth, George R.....Univ. Hosp., Ann Arbor
Den Houter, W. D.....1005 W. Ann Arbor Tr., Plymouth
DeTar, John S.....55 W. Main St., Milan
DeWeese, Marion S.....Univ. Hosp., Ann Arbor
Dieterich, Gordon C.....820 E. University, Ann Arbor
Dillman, Richard S.....529 Fifth St., Ann Arbor
Dingman, Reed O.....1029 Chestnut Rd., Ann Arbor
Dodson, Vernon N.....1638 University Hosp., Ann Arbor
Dolfin, Wilbur E.....2210 Melrose, Ann Arbor
Domino, Edward F.....1325 Brooklyn, Ann Arbor
Doorn, Henry A.....8362 Pulaski Hwy., Baltimore 6, Md.
Douthat, Rudenz T.....213 S. Ann Arbor St., Saline
Dryer, Clyde K.....3033 Sophia St., Wayne
Dukay, Alexander P.....Ypsilanti State Hosp., Ypsilanti

Earle, Richard H. (M).....2119 Agin Ct., Ann Arbor
Edmunds, Wm. P.....21 S. Prospect, Ypsilanti
Eliot, Johan W.....Sch. of Pub. Health, Ann Arbor
Elliott, Lyle D.....26 S. Prospect, Ypsilanti
Engelke, Otto K.....313 Washtenaw Co. Bldg., Ann Arbor
Entwistle, F. R. (A)....1118 Maiden Lane Ct., Ann Arbor
Evans, Tommy N.....1001 Belmont Rd., Ann Arbor
Fajans, Stefan S.....248 Devonshire, Ann Arbor
Falk, Elwin C.....Ford Mtr. Co., Box 412, Ypsilanti
Falls, Harold F.....Univ. Hosp., Ann Arbor
Fayos, Juan V. (A).....Univ. Hosp., Ann Arbor
Feller, Irving.....2565 Carmel St., Ann Arbor
Fellman, S. L.....2216 Medford Rd., Ann Arbor
Ferrington, R. A.....519 W. Main St., Milan
Finch, Stuart M.....Child Psychiatric Hosp., Ann Arbor
Finger, John E. (A).....Dept. of Path. Bas. Sci. B., Ldg. U.M., Ann Arbor
Fink, Geor. C.....411 N. Ingalls St., Ann Arbor
Fink, Howard E., Jr. (A).....Univ. Hosp., Ann Arbor
Fischmann, George.....Box 36, Whitmore Lake
Fisher, Jos. V.....Chelsea
Fliegel, Martin B.....1 W. Wilson, Madison 2, Wisc.
Forbis, Orie L.....18471 Haggerty Rd., Northville
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Barton, Jos. R.....19619 W. Warren, Detroit 28
Batchelor, Melvin T.....18060 Conant, Detroit 34
Bates, Gaylord S.....861 Monroe Blvd., Dearborn
Battle, John M.....6904 Charlesworth, Dearborn 6
Bauer, A. Robt.....19268 Grand River Ave., Detroit 23
Bauer, Benedict J.....16451 Schoolcraft, Detroit 27
Bauer, Lester E.....4 Woodside Pk., Pleasant Ridge
Bauer, Ralph E.....Henry Ford Hosp., Detroit 2
Bauer, Raymond B.....1326 St. Antoine St., Detroit 26
Baugh, Richard H.....24216 Michigan Ave., Dearborn
Baumer, Moe.....10 Peterboro, Detroit 1
Baumgarten, Elden C.....20867 Mack Ave., Grosse Pte. 36
Baumgarten, Thos. W.....20867 Mack Ave., Grosse Pte. 36
Baxter, Seymour.....19925 Livernois, Detroit 21
Bayles, John G.....14359 Michigan, Dearborn
Bazil, Gilbert M.....19345 W. McNichols, Detroit 21
Beach, Watson.....20815 Mack Ave., Detroit 36
Beam, A. Duane....20160 Mack Ave., Grosse Pte. Woods
Beamer, Geo. D.....14853 Michigan Ave., Dearborn
Beard, James E.....906 N. Highland, Dearborn
Beck, Stanley M., Jr.....13118 Fort St., Wyandotte
Becker, Abraham.....10 Witherell St., Detroit 26
Beckett, Peter G. S.....951 E. Lafayette St., Detroit 7
Beckett, Victoria L. (A).....1420 Anita, Grosse Pte. Woods
Becklein, Clarence L.....14351 E. Warren Ave., Detroit 15
Bedell, Archie A.....15545 Mack Ave., Detroit 24
Bedwell, Wm. L.....1249 Washington Blvd., Detroit 26
Beebe, Willard E.....20203 Ann Arbor Tr., Dearborn 6
Beekhuis, G. Jan.....1326 St. Antoine St., Detroit 7
Beeuwkes, L. E.....13014 Mackenzie Ave., Detroit 28
Behan, Robt. C.....500 Griswold St., Detroit 26
Beitman, Max R.....510 Kales Bldg., Detroit 26
Belanger, W. Geo.....1041 Harvard, Detroit 30
Belden, Darwin F.....2424 Puritan, Detroit 38
Bell, J. Kenner.....660 Woodward Ave., Detroit 26
Bende, Sandor F.....15863 Garfield, Allen Park
Beninson, Joseph.....Henry Ford Hosp., Detroit 2
Bennett, Germany E.....5144 Hastings St., Detroit 11
Bennett, Harry B.....17320 Livernois, Detroit

Bennett, H. Stanley.....29767 E. River Rd., Grosse Isle
Bennett, Sanford A...15301 W. 9 Mile Rd., Oak Park 37
Bennett, Zina B. (L).....10319 Lanark, Detroit 24
Bennish, E. Leo.....14438 W. 6 Mile Rd., Detroit
Benson, Clifford D.....1553 Woodward Ave., Detroit 26
Benson, Davis A.....17563 Greenfield, Detroit 35
Benson, Paul J.....2355 Fort St., Lincoln Park
Benson, Virginia M.....16238 Snowden Ave., Detroit 35
Bentley, Wm. G.....50 Westminster, Detroit 2
Berge, Clarence A. (L).....878 Lakewood, Detroit 15
Berger, Edwin L.....7301 Schaefer Rd., Dearborn
Bergman, Murray S.....4400 Livernois Ave., Detroit 10
Berk, J. Edward.....Sinai Hospital, Detroit 35
Berke, Sydney S.....3333 E. Jefferson, Detroit 7
Berkman, Ruth (A)..31567 W. 13 Mile Rd., Farmington
Berlin, Allen B.....19467 Livernois, Detroit 21
Berman, Charles.....Highland Pk. Gen. Hosp., Highland Park 3
Berman, Lawrence.....1401 Rivard St., Detroit 7
Berman, Robt. H.....2111 Woodward, Detroit 1
Berman, Sidney L.....60 W. Hancock, Detroit 1
Bernard, Walter G.....910 Chalmer, Detroit 15
Bernbaum, Bernard.....17320 Livernois, Detroit 21
Bernstein, Saml. S.....18200 Wyoming, Detroit 21
Berridge, William L.....Chevrolet Motor Co., Livonia
Berry, Jos. E.....19242 W. 7 Mile Rd., Detroit 19
Besancon, John H.....1510 Broderick Tower, Detroit 26
Best, Thos. H. E. (L).....9221 E. Jefferson Ave., Detroit 14
Betanzos, G.....2730 E. Jefferson Ave., Detroit 7
Bethea, J. Hardee.....18150 Mack, Detroit 24
Bialik, Michael H.....14853 Michigan Ave., Dearborn
Bicknell, Frank B.....938 David Whitney Bldg., Detroit 26
Bielawski, John G.....8124 E. Morrow Circle, Detroit 4
Bigman, Oscar.....18400 Schaefer Rd., Detroit 35
Bihl, John H.....15800 W. McNichols Rd., Detroit 35
Billingslea, Thos. H.....2175 Willis Ave. E., Detroit 7
Bing, Richard J.....1401 Rivard St., Detroit 7
Birch, John R.....925 David Whitney Bldg., Detroit 26
Birk, Robert E.....Henry Ford Hospital, Detroit 2
Birkam, Fred F.....7301 Schaefer Rd., Dearborn
Birkelo, Carl C. (R)....1630 Chestnut, Winter Park, Fla.
Birkhill, F. Ross.....31 Shady Hollow Dr., Dearborn
Birmingham, John R.....14215 W. McNichols, Detroit 35
Birndorf, Leonard.....18317 John R St., Detroit 3
Bittker, Isadore I.....3321 Rochester Rd., Royal Oak
Bittrich, Norbert M.....2500 W. Grand Blvd., Detroit 8
Black, David H.....1225 Hampton, Detroit 36
Black, Perry S. (L)....19431 Van Dyke Ave., Detroit 34
Black, Robert W.....641 David Whitney Bldg., Detroit 21
Blain, Alexander, III.....2201 E. Jefferson, Detroit 7
Blain, Donald G.....2201 E. Jefferson, Detroit 7
Blain, James H., Jr.....119 Kercheval Rd., Detroit 36
Blaine, Max.....5057 Woodward Ave., Detroit 2
Blair, Wm. F.....81 E. Kirby St., Detroit 2
Blanchard, Gerald E.....Ford Motor Co., Dearborn
Blanchard, Russell S.....1 Lafayette Plaisance, Detroit 7
Blanks, Douglas H.....3955 Fort St., Lincoln Park
Blatt, Ronald W.....300 Cadillac Sq. Bldg., Detroit 26
Bleier, Alfred.....13015 E. Warren Ave., Detroit 15
Bleier, Jos.....7504 Dexter Blvd., Detroit 6
Bloch, Abraham.....2935 E. Milwaukee Ave., Detroit 11
Block, Duane L.....3001 Miller Rd., Dearborn
Block, Melvin A.....2799 W. Grand Blvd., Detroit 2
Blodgett, James B.....76 W. Adams St., Detroit 26
Blodgett, Wm. E.....76 W. Adams Ave., Detroit 26
Blodgett, Wm. H.....74 W. Adams Ave., Detroit 26
Blondy, Marshall J.....19009 W. 7 Mile Rd., Detroit 19
Bloom, Albert.....6484 Chene St., Detroit 11
Bloom, Arthur R.....19140 Gloucester, Detroit 3
Bloom, Victor.....951 E. Lafayette, Detroit 7
Bloomberg, Sanford.....41001 W. 7 Mile, Northville
Bloor, Robert J.....Henry Ford Hospital, Detroit 2
Blum, George L.....18200 Wyoming, Detroit 21
Blumenthal, Frank S.....216 Brady, Detroit 1
Blumenthal, Franz L. (L).....3011 W. Grand Blvd., Detroit 2
Blumer, Abraham.....21415 W. 8 Mile Rd., Detroit 19
Boccaccio, John L.....11532 Morang, Detroit 24
Boccia, James J.....15761 E. Warren, Detroit 24
Boddie, Arthur W.....2737 Chene St., Detroit 7
Bogucki, Chester J.....8110 Bliss, Detroit 34
Bogue, Robt. E.....15800 W. McNichols Rd., Detroit 35
Bogusz, Ladislaus (R).....29215 Maranya Rd., Homestead, Fla.
Bohn, Z. Stephen.....327 Professional Bldg., Detroit 1
Bohne, A. Waite.....Henry Ford Hospital, Detroit 2
Boland, John R. (R).....Box 50, Grand Marais
Boles, Murray.....26381 Dundalk Lane, Farmington
Bolstad, Donald S.....Henry Ford Hospital, Detroit 2
Bolter, Sidney.....18916 Woodward, Detroit 3
Bolton, Russell P., Jr.....19566 Grand River Ave., Detroit 23
Boman, Robert H.....12650 E. Outer Dr., Detroit 24
Bookstein, Abraham M.....1475 Colton Ave., Detroit 3
Boone, Geo. F.....1328 Jolet, Detroit
Booth, Earnest.....Woman's Hospital, Detroit 1
Borchak, Robert G.....12408 Van Dyke, Detroit 34
Borden, Igor I.....987 E. Jefferson Ave., Detroit 7
Borin, Maurice C.....18115 Fairfield St., Detroit 21
Bornstein, Sidney.....2033 Puritan, Detroit 3
Bott, Edmund T.....1629 Ford, Wyandotte
Botvinick, Isadore.....13701 W. 7 Mile Rd., Detroit 35
Boutrous, Thos. A.....15801 W. McNichols, Detroit 35
Bouza, Manuel A.....817 Virginia Park, Detroit 7
Bower, Donald W.....719 Liberty, Lincoln Park
Bower, Franklin T.....70 Kensington, Pleasant Ridge
Bowers, Leo J.....11200 E. McNichols Rd., Detroit 34
Bowlby, James R.....15420 Farmington Rd., Livonia
Bownes, Eugene A.....18520 Grand River, Detroit 23
Boyajian, Albert.....27459 5 Mile Rd., Livonia
Boyd, John H.....2615 W. Jefferson, Trenton
Boyle, Albert J.....Wayne St. University, Detroit 2
Boyle, Eugene H.....15152 Gratiot Ave., Detroit 5
Boyle, Robert E.....Fisher Body Div., GMC, Livonia
Bracken, Andrew H.....5460 Schaefer, Dearborn
Braden, Robt. G.....25060 E. River Place, Grosse Isle
Bradfield, Horace F.....3008 E. Grand Blvd., Detroit 2
Bradley, Geo. T.....1553 Woodward Ave., Detroit 26
Brady, Herbert A.....10593 W. Jefferson, Detroit 18
Braley, Wm. N. (L).....12897 Woodward, Detroit 3
Bramigk, Fritz W. (L)....509-511 Prof. Bldg., Detroit 1
Brand, Benj.....4500 Wabash Ave., Detroit 8
Braun, Lionel.....18644 Muirland Ave., Detroit 21
Braun, Robert A.....18610 Hartwell Ave., Detroit 35
Braverman, Morris M.....1221 Maccabees Bldg., Detroit 2
Bredau, Frank N., Jr.....24781 Fenkell, Detroit 29
Breiner, Sander J.....14300 W. McNichols Rd., Detroit 21
Brekke, Viola G.....369 Glendale St., Highland Park 3
Bremer, John P.....17818 E. Warren, Detroit 24
Bremer, Wm. M.....15641 E. Warren, Detroit 24
Breneman, Gerald M.....16926 13 Mile Rd., Birmingham
Brennan, Michael J.....1176 Grayton, Detroit 30
Brent, Morris S.....1330 Strathcona Dr., Detroit 3
Brey, Norman W.....5057 Woodward Ave., Detroit 2
Briegel, Walter A. (R)....1186 Buckingham, Birmingham
Briggs, Wm. J.....1202 Maccabees Bldg., Detroit 2
Bringard, Elmer L.....18110 Fairfield Ave., Detroit 21
Brinkman, G. L.....Henry Ford Hospital, Detroit 26
Briski, Jacob E.....21231 Sunnydale, St. Clair Shores
Brisson, Jos. C.....9191 Whittier St., Detroit 24
Bristol, Wm. R.....189 Claverly, Detroit 36
Broadman, Sylvan A.....25705 Middlebelt, Farmington
Brock, Donald R.....36475 5 Mile Rd., Livonia
Broderson, Harvey S. (R).....10720 W. Jefferson, River Rouge 18
Bromme, Wm.....10 Peterboro St., Detroit 1
Brooks, Chas. W., II.....2033 E. Davison St., Detroit 12
Brooks, Eugene M.....1103 Kales Bldg., Detroit 26
Brooks, Nathan.....904 Maccabees Bldg., Detroit 2
Brosius, Chas. O.....15800 6 Mile Rd., Detroit 35
Brosius, Wm. L.....16150 Sorrento, Detroit 35
Brough, Glen A.....1553 Woodward Ave., Detroit 26
Brown, Andrew G.....18230 Grand River Ave., Detroit 23

Brown, Audrey O. (L)..5057 Woodward Ave., Detroit 2
Brown, Carlton F.....16552 Westmoreland Rd., Detroit 19
Brown, Chas. H.....2387 Fort St., Wyandotte
Brown, Eli M.....13123 LaSalle, Huntington Woods
Brown, Frances.....1940 Lincolnshire, Detroit 3
Brown, Gordon T.....13000 Hayes Ave., Detroit 5
Brown, Henry S. (L).....18101 Jas Couzens Hwy., Detroit 35
Brown, H. Zane (A).....Receiving Hospital, Detroit
Brown, John R.....702 Maccabees Bldg., Detroit 2
Brown, Robt. A.....3529 W. Jefferson, Detroit 29
Brown, Saml. M.....21821 Harding, Oak Park
Brown, Saul.....6890 White Pine Dr., Birmingham
Brown, Stanley H.....8544 W. McNichols Rd., Detroit 21
Brown, Thos. A.....5430 W. Warren Ave., Detroit 10
Brownell, H. H.....10435 Groh, Grosse Isle
Brownell, Paul G.....18916 Woodward Ave., Detroit 3
Bruce, Thomas A.....Detroit Receiving Hospital, Detroit 26
Bruder, Robt. C.....4520 Firestone Ave., Dearborn
Bruer, Edgar S.....12170 Fort St., Wyandotte
Bruer, Edwin L.....12170 Fort St., Wyandotte
Brundage, Robt. D.....1914 Edgewood, Dearborn
Brush, Brock E.....2799 W. Grand Blvd., Detroit 2
Bruton, Martin F.....341 Massachusetts, Detroit 31
Bryan, Donald I.....13700 Woodward Ave., Highland Park 3
Bryan, John B.....2799 W. Grand Blvd., Detroit 2
Bryce, John D.....Med. Dispensary APO, Detroit 33
Budson, Danl.....10330 W. 7 Mile Rd., Detroit 21
Buell, John H. (R).....188 Provencal Rd., Detroit 36
Buerki, Robin C.....Henry Ford Hosp., Detroit 2
Buettgen, Jan W.....1800 Tuxedo, Detroit 6
Buller, Harry L. (A).....4120 Fenkell Ave., Detroit 38
Burge, Robert H.....28343 Joy Rd., Dearborn
Burke, Ralph M.....580 University Pl., Grosse Pointe 30
Burnham, David C.....13700 Woodward Ave., Highland Park
Burns, Robert E.....Henry Ford Hosp., Detroit 2
Burns, Robt. T.....11110 Morang Rd., Detroit 24
Burnside, Howard B.....33 Oakland Park, Pleasant Ridge
Burnstine, Julius Y. (L).....45 Owen Ave., Detroit 2
Burnstine, Perry P.....2329 W. Grand Blvd., Detroit 8
Burr, Geo. C. (L).....2016 W. Boston Blvd., Detroit 6
Burroughs, Roswell G.....31624 Auburn Dr., Birmingham
Burrows, Howard A.....10423 W. Warren Ave., Dearborn
Burstein, Harry S.....2950 W. Grand Blvd., Detroit 2
Burstein, I. Marvin.....2950 W. Grand Blvd., Detroit 2
Burstein, Morris M.....2950 W. Grand Blvd., Detroit 2
Burton, DeWitt T. (L).....54 Arden Park, Detroit 2
Burton, Irving F.....26912 York Rd., Huntington Woods
Burton, John F.....VA Hospital, Dearborn
Bush, Glendon J.....18901 W. McNichols, Detroit 19
Butler, Harry J. (L)....33 Waverly Ave., Highland Park
Butler, John D.....2173 W. Grand Blvd., Detroit 8
Butler, J. Payne.....3403 W. Warren St., Detroit 8
Butler, Lawrence H.....14521 E. 7 Mile Rd., Detroit 5
Butler, Richard G.....2021 Monroe, Dearborn
Butler, Volney N.....28 W. Adams Ave., Detroit 26
Buttrum, Edward J.....14755 Fenkell St., Detroit 27
Byers, Dudley W. (A).....8934 Oakland, Detroit 11

Cadieux, Henry W.....899 Westchester, Grosse Pointe 30
Cahalan, Jos. L.....1553 Woodward Ave., Detroit 26
Cain, Waldo L.....8033 Twelfth St., Detroit 6
Caldwell, Geo. L. (L)..12017 Joseph Campau, Detroit 12
Caldwell, John R.....2799 W. Grand Blvd., Detroit 2
Calkins, H. Neill (A).....15302 Gilchrist, Detroit 27
Cameron, Arthur H. (L)....2853 Biddle Ave., Wyandotte
Cameron, Duncan A.....2021 Monroe, Dearborn
Campbell, Duncan (L).....14231 Greenfield, Detroit
Campbell, Everett W.....7901 W. Jefferson, Detroit 17
Campbell, Harvey E.....25525 Graceland, Inkster
Campbell, Malcolm D. (L).....14950 Forrer, Detroit 27
Campbell, Mary B. (L).....10454 Kingston, Huntington Woods
Campbell, Robt. E.....8445 E. Jefferson Ave., Detroit 14
Campbell, Ruth B.....1536 David Whitney, Detroit 26
Campbell, Thelma M.....2355 Monroe Blvd., Dearborn
Candler, Clarence L.....20040 Mack Ave., Detroit 36
Canter, Gayle E.....26 Waverly, Detroit 3
Cantor, Herbert C.....26831 N. Woodward, Huntington Woods
Cantor, Meyer O.....26831 Woodward Ave., Huntington Woods
Cantow, Lawrence A...19291 Warrington Dr., Detroit 21
Capellari, Elmer E.....Box 3059, Detroit
Caputo, Jos. M.....21831 Willoway, Dearborn
Caputo, Nancy T.....17712 Mack Ave., Grosse Pointe 30
Capuzzi, Eugene T.....24644 Gleneyrie Dr., Southfield
Caraway, James E.....35804 John R St., Wayne
Carbone, Louis.....14711 Gratiot Ave., Detroit 5
Carbonell, Tomas.....353 Devonshire, Dearborn
Carlisle, John C.....1221 Lincoln, Lincoln Park
Carlisle, Jos. D.....1810 Woodward Ave., Birmingham
Carlson, Harold W.....18070 Wildemere Ave., Detroit 21
Carmichael, Edward K. (L).....7815 E. Jefferson Ave., Detroit 14
Carnes, Harry E.....Parke Davis Co., Detroit 32
Carp, Jos.....8717 Van Dyke, Detroit 13
Carpenter, C. J.....P.O. Box 390, Wayne
Carpenter, Glenn B. (L)..2751 W. 7 Mile Rd., Detroit 21
Carpenter, Wm. S...18255 W. McNichols Rd., Detroit 19
Carr, James G.....14111 Korte, Detroit 15
Carrick, Lee.....18050 Mack Ave., Grosse Pointe
Carroll, Elmer H.....9920 Stoepel Ave., Detroit 4
Carroll, Jerome G.....19723 Dale, Detroit 19
Carroll, Lona B. (L)..938 D. Whitney Bldg., Detroit 26
Carson, Herman J.....7745 Puritan Ave., Detroit 38
Carstens, Henry R. (L).....6896 N. Clunbury Rd., Birmingham
Carter, John M. (L).....18900 Fairway Dr., Detroit 21
Carter, Leland F.....750 Middlesex, Detroit 30
Casey, Charles G.....1800 Tuxedo, Detroit 6
Cash, Ralph.....19316 Jas. Couzens Hwy., Detroit 35
Cassel, Harry E.....6742 Park Ave., Allen Park
Castle, Maurice E.....18980 Wyoming, Detroit 21
Catherwood, Albert E. (L).....1337 D. Whitney Bldg., Detroit 26
Caughey, Andrew F., Jr.....20041 W. 8 Mile Rd., Detroit 19
Caughey, Edgar H.....11301 Whittier St., Detroit 24
Caumartin, Fred E.....17184 Wildemere, Detroit 21
Cellar, Frank A., Jr.....5057 Woodward Ave., Detroit 2
Ceravolo, Albert J.....468 Cadieux Rd., Detroit 30
Cetnar, Eugene J.....4322 Bishop, Detroit 24
Chajes, Richard.....16850 Joy Rd., Detroit 28
Chalat, Ned I.....1553 Woodward Ave., Detroit 26
Chall, Henry G.....2941 W. McNichols Rd., Detroit 21
Chapin, Sidney E.....125 N. Military, Dearborn 7
Chapman, Aaron L. (L).....2550 Atkinson, Detroit 6
Chapman, Paul T.....1151 Taylor Ave., Detroit 2
Chapman, Roland H.....7600 John R St., Detroit 2
Chapman, Thomas H.....18901 Grand River Ave., Detroit 23
Chapnick, Henry A.....19322 Wyoming, Detroit 21
Chapper, Barbara M.....861 Monroe, Dearborn
Charleston, R. A.....17256 Pierson, Detroit 19
Charnas, Sidney.....5057 Woodward Ave., Detroit 2
Chase, Clyde H. (R).....2922 Dawes St. S.E., Grand Rapids 8
Chason, Jacob L.....1401 Rivard St., Detroit 7
Chavis, William M.....15866 12th St., Detroit 21
Check, Frank E.....76 W. Adams Ave., Detroit 26
Chen, Allen S. Y.....Wayne Co. Gen. Hosp., Eloise
Chen, Calvin H.....State Hospital, Northville
Chen, Shek C.....1326 St. Antoine, Detroit 26
Chen, Vincent V.....987 E. Jefferson, Detroit 7
Chesluk, Herman M...17191 J. Couzens Hwy., Detroit 35
Chester, Alice.....25085 Coolidge Hwy., Oak Park
Chester, Wm. P.....2916 Seminole, Detroit 14
Childs, Geo. M.....2842 W. Grand Blvd., Detroit 2
Chipman, Willard A.....14300 W. McNichols Rd., Detroit 35

Chipoco, Adolfo M.....25210 Grand River, Detroit 40
Chostner, Grover C. (R).....841 Eden Isle Blvd., St. Petersburg, Fla.
Chown, Marion C.....2025 Ford, Wyandotte
Christensen, R. C.....19635 Mack, Grosse Pointe Woods
Christopher, James G.....4777 E. Outer Dr., Detroit 34
Chrouch, Laurence A. (L).....Pleasant Hill, Tenn.
Church, Aloysius S.....19570 Bretton Dr., Detroit 23
Churchill, John A.....Lafayette Clinic, Detroit 7
Cioffari, Mario S.....15924 W. 7 Mile Rd., Detroit 35
Ciprian, Jos. E.....1775 E. Grand Blvd., Detroit 11
Clapper, Muir.....1401 Rivard St., Detroit 7
Clark, Arthur M.....318 Beechmont, Dearborn
Clark, Chas. J.....510 Hughes Rd., Howell
Clark, Clarence M.....2605 Holbrook Ave., Detroit 12
Clark, Harold E. (L)....30761 Greenfield Rd., Southfield
Clark, Wm. P.....1808 Baldwin, Ann Arbor
Clarke, Chas. N.....2501 W. Grand Blvd., Detroit 8
Clarke, Norman E.....2501 W. Grand Blvd., Detroit 8
Clarke, Norman E., Jr...2501 W. Grand Blvd., Detroit 8
Clarke, Robt. B.....76 W. Adams Ave., Detroit 26
Clifford, Geo. O., Jr.....Wayne Univ. College of Med., Detroit 7
Clifford, John E.....2108 D. Broderick Tower, Detroit 26
Clifford, Thos. P. (L).....1750 D. Whitney Bldg., Detroit 26
Climie, Andrew R. W.....Harper Hospital, Detroit 1
Cline, Richard S.....15101 Plymouth Rd., Detroit 27
Coan, Glenn L. (L)..2336 Van Alstyne Blvd., Wyandotte
Coates, E. Osborne, Jr.....Henry Ford Hospital, Detroit 2
Cobane, John H.....10 Peterboro Ave., Detroit 1
Cochrane, Edgar G.....503 Med. Arts Bldg., Detroit 3
Cocorelis, S. G.....33000 Palmer, Wayne
Cohen, Herbert H.....12700 W. 7 Mile Rd., Detroit 35
Cohen, Melvin F.....20242 Braile, Detroit 19
Cohn, Danl. E.....409 Fox Bldg., Detroit 1
Cohn, S. Leonard.....19105 W. 7 Mile Rd., Detroit 19
Cohoe, Don A. (L).....18916 Woodward Ave., Detroit 3
Cole, James E.....344 Glendale Ave., Detroit 3
Cole, Wyman C. C.....1063 Fisher Bldg., Detroit 2
Cole, Wyman C. C., Jr...3011 W. Grand Blvd., Detroit 2
Coleman, Margarete W. (L).....58 W. Adams Ave., Detroit 26
Coleman, Peter F.....31410 Joy Rd., Livonia
Coleman, Wm. G.....20526 Grand River Ave., Detroit 19
Coles, Thomas B., Jr.....Grace Hospital, Detroit 1
Collier, Beverly A.....Henry Ford Hosp., Detroit 2
Collings, M. Raymond (A).....9201 W. Outer Dr., Detroit 19
Collins, James E.....13103 W. Chicago Blvd., Detroit 28
Colvin, Leslie T.....3011 W. Grand Blvd., Detroit 2
Colyer, Raymond G.....284 Pilgrim, Birmingham
Combs, Julius V. (A)....Det. Receiving Hosp., Detroit 26
Comly, Hunter H.....5475 Woodward, Detroit 2
Compton, Wm. A., Jr.....36825 Bibbins, Romulus
Comstock, Lawrence A.....2299 West Road, Trenton
Conklin, Emma J.....Wayne Co. Gen. Hosp., Eloise
Conley, Lowry C. M. (L).....99 Tuxedo Ave., Detroit 3
Connelly, Richard C.....1401 D. Whitney Bldg., Detroit
Connolly, Paul J.....16778 Westmoreland Rd., Detroit 19
Connors, John J.....3546 Trumbull Ave., Detroit 8
Cook, James A.....2246 20th St., Wyandotte
Cook, James C.....3825 Brush St., Detroit 1
Cookinham, Frank.....999 S. Highland, Dearborn
Cooksey, Warren B.....801 Adams Rd., Birmingham
Cooper, James B.....18150 Mack Ave., Grosse Pointe 30
Cooper, Ralph R.....850 Lakeland, Grosse Pointe 30
Cooper, Richard F.....23130 Wilson, Dearborn
Corbeille, Catherine.....3011 W. Grand Blvd., Detroit 2
Cortez, Joseph A.....19350 W. McNichols, Detroit 15
Costello, Russell T.....3001 W. Grand Blvd., Detroit 2
Costello, Stephen D.....2031 West Road, Trenton
Cotant, John F.....14341 W. McNichols, Detroit 35
Cotruro, Louis D. (L)....3640 McDougall Ave., Detroit 7
Cotton, Schuyler O. (R)....7904 Vernor Hwy., Detroit 9
Coulter, Wm. J.....5258 Chatsworth, Detroit 24
Courville, Chas. J.....1202 Maccabees Bldg., Detroit 2
Cowan, Wilfrid.....14239 Chandler Park Dr., Detroit 13
Cowen, Leon B. (L).....5057 Woodward Ave., Detroit 2
Cowen, Robt. L.....91 E. Kirby, Detroit 2
Cox, Frank, Jr.....Henry Ford Hosp., Detroit 2
Coyle, James E.....573 Fisher Bldg., Detroit 2
Craig, Roy E.....74 Fontana Lane, Grosse Pte. Shores
Craig, Roy D.....829 Fisher Bldg., Detroit 2
Crawford, Robert I. (A).....Lyons
Crews, Thos. H.....3011 W. Grand Blvd., Detroit 2
Crockett, E. E. J.....7341 W. Warren, Detroit 10
Croll, Leo J.....12703 W. 7 Mile Rd., Detroit 35
Croll, Maurice.....12703 W. 7 Mile Rd., Detroit 35
Crook, Chas. L.....60 Colorado St., Highland Park 3
Cross, Harold E.....68 N. Deepland Rd., Grosse Pointe
Crossen, Robert J.....933 D. Whitney Bldg., Detroit
Croushore, James E.....3001 W. Grand Blvd., Detroit 2
Cubberley, Robt. B.....1800 Tuxedo St., Detroit 6
Cueto, Jose M.....4342 W. Vernor, Detroit 9
Cullis, Frank.....261 Brady, Detroit 1
Curhan, Jos. H.....18709 Meyers Rd., Detroit 35
Curtis, Frank E. (L).....10 Peterboro St., Detroit 1
Curtiss, Wm. P.....22631 Mack Ave., St. Clair Shores
Cusick, Paul L.....1108 Stroh Bldg., Detroit 26
Czuj, John M.....17198 Oak Dr., Detroit 21

Daignault, F. M.....14300 W. McNichols Rd., Detroit
Daitch, Martin H.....13011 W. McNichols Rd., Detroit 35
Dale, Esther H.....1401 Rivard St., Detroit 7
Dale, Mark.....3702 E. 8 Mile Rd., Detroit 34
Dal Santo, G.....1800 Tuxedo, Detroit 6
Daly, Eugene T.....24781 Fenkell, Detroit 29
Danforth, James C., Jr.....20175 Mack Ave., Detroit 36
Danforth, Robt. D.....20175 Mack Ave., Detroit 36
Danz, George W.....1539 Ford, Wyandotte
Daoust, Patrick H.....15520 Garfield, Allen Park
Darling, Chas. E.....673 Fisher Bldg., Detroit 2
Darling, Milton A.....673-4 Fisher Bldg., Detroit 2
Darnley, James D.....2799 W. Grand Blvd., Detroit 2
Darpin, Peter H. (L).....6602 W. Fort St., Detroit 9
Dashiell, Grayson F.....1800 Tuxedo, Detroit 6
Davidson, David M.....3011 W. Grand Blvd., Detroit 2
Davidson, Harold H.....17111 Indiana, Detroit 21
Davidson, Harry O.....2799 W. Grand Blvd., Detroit 2
Davies, Thos. S. (L)....15115 E. Jefferson, Grosse Pte. 30
Davies, Windsor S.....28 W. Adams Ave., Detroit 26
Davis, Herbert A.....15565 Champagne, Allen Park
Dawson, W. A. (R).....188 Lake Silver Dr. N.W., Winter Haven, Fla.
Day, A. Jackson.....245 Cloverly Rd., Detroit 36
Day, Francis T.....18540 Mack, Detroit 36
Day, Jay C.....1553 Woodward Ave., Detroit 26
Dean, Carleton R. (M).....Office of Vocational Rehab., 42 Broadway, Room 1200, New York City 4, N. Y.
Dean, George A.....26559 Grand River, Detroit 40
DeBusk, Roger W.....4160 John R St., Detroit 1
Deering, Robt. J.....1359 Champaign, Lincoln Park
Defever, Cyril R.....19787 Mack Ave., Detroit 36
DeGiustino, Caesar.....1175 E. Grand Blvd., Detroit 11
DeGroat, Albert F.....1151 Taylor Ave., Detroit 2
Delaini, Stella M.....3011 W. Grand Blvd., Detroit 2
Delaney, James R.....1737 D. Whitney Bldg., Detroit 26
DeLawrence, Betty J.....21576 Michigan Ave., Dearborn
DeLawrence, Thomas.....21576 Michigan Ave., Dearborn
Del Giorno, Thos. E.....St. Johns Hosp., Detroit 36
Del Valle, Mario.....9801 Conant, Detroit 12
Dennis, Melvin S.....751 S. Military St., Dearborn
Deponio, Sylvester A.....20215 Van Dyke Ave., Detroit 34
Deresz, Alphonse R.....4204 E. Outer Dr., Detroit 34
Derleth, Paul E.....563 W. Oakridge, Detroit 20
Derr, John W.....702 Maccabees Bldg., Detroit 2
Derrick, C. F.....3677 Fort St., Lincoln Park
DeSmyter, Geo. C.....15527 E. Warren, Detroit 24
DeSpelder, Ray E.....2970 W. Grand Blvd., Detroit 2
Deuby, Owen J.....15121 W. 7 Mile Rd., Detroit
Devine, Herbert W.....22101 Moross Rd., Detroit 36
Diakow, Lilian M.....1539 N. Line Rd., Wyandotte
Dibble, Harry F. (L)....1553 Woodward Ave., Detroit 26

Dickson, Basil R.....337 W. Grand Blvd., Detroit 16
Dickson, Elias L., Jr.....7716 Oakland Ave., Detroit 11
Dickson, Laurie C., Jr.....400 Lincoln Rd., Grosse Pte. 30
Dickson, Leon A.....5535 W. Chicago, Detroit 4
Dickson, Mary D.....18424 Mack Ave., Grosse Pte. 36
Diebel, Nelson W.....660 Cadieux Rd., Detroit 30
Diekman, Fred C...15800 W. McNichols Rd., Detroit 35
Dietze, Margaret R.....861 Monroe, Dearborn
Dietzel, Hugo O. (R)..844 Hemlock Dr., San Carlos, Cal.
DiLella, Leonard L.....Henry Ford Hosp., Detroit 2
Dill, Hugh L.....16114 E. Warren Ave., Detroit 24
Dill, J. Lewis.....18615 Birchcrest, Detroit 21
DiLoreto, Panfilo C.....285 Vincennes Pl., Detroit 36
DiMaso, Gennaro J.....21501 Kelly, East Detroit
Dimond, Geo. E.....6853 Orchard St., Dearborn
Dionne, Paul E.....1308 Kales Bldg., Detroit 26
Dittmer, Edwin F.....18412 Mack Ave., Detroit 36
Ditzler, John W.....581 Rivard Blvd., Detroit 30
Dixon, Fredk. W.....245 S. Martha, Dearborn
Dixon, Ray S. (L).....5001 Van Dyke, Detroit 13
Dodds, John C. (L).....30 Morand Rd., Detroit 36
Dodenhoff, Chas. F.....18031 Kelly Rd., Detroit 24
Dodrill, Forest D.....Woodberry Dr., Bloomfield Hills
Doering, Wendell R.....17555 Jas. Couzens, Detroit 35
Doig, Victor F.....19676 Dale, Detroit 19
Dolan, Edward A.....22345 Cherry Hill, Dearborn
Dolega, Stanley F.....15640 E. Warren Ave., Detroit 24
Dolgoff, Sidney.....15600 Michigan Ave., Dearborn
Dolin, Simon.....2900 S. Fort St., Detroit 17
Domzalski, Casimir A...5361 McDougall Ave., Detroit 11
Domzalski, Henry M.....15252 Gratiot Ave., Detroit 5
Donald, Douglas.....7815 E. Jefferson Ave., Detroit 14
Donath, Rolf W.....1116 Maccabees Bldg., Detroit 2
Donovan, Eugene T.....13365 Michigan Ave., Dearborn
Donovan, Richard S.....17555 Jas. Couzens, Detroit 35
Doran, John H.....15101 Plymouth Rd., Detroit 27
Dorman, Jack.....18245 Warrington Dr., Detroit 21
Dorsey, John M.....65 Moss Ave., Highland Park 3
Doty, Chester A. (L)....1553 Woodward Ave., Detroit 26
Doub, Howard P. (L)....2799 W. Grand Blvd., Detroit 2
Douglas, Clair L. (L)....1553 Woodward Ave., Detroit 26
Douglass, Robt. C...32316 Grand River Ave., Farmington
Dovitz, Benj. W.....16820 Greenfield Ave., Detroit 35
Dowdle, Edward (L).....2501 W. Grand Blvd., Detroit 8
Downer, Ira G.....8445 E. Jefferson Ave., Detroit 14
Downes, Geo. O.....15062 Houston, Detroit 5
Drake, Ellery T.....Box 849, Williamson, W. Va.
Drake, Ellet H.....Henry Ford Hosp., Detroit 2
Drake, James J. (R).....8845 Marygrove Dr., Detroit 21
Drapiza, Ruth L.....22231 W. Outer Dr., DBN Detroit
Draves, Edward F.....19647 Joy Rd., Detroit 28
Drazek, Jos. A.....18980 Wyoming, Detroit 21
Drews, Robt. S.....12500 Broadstreet Blvd., Detroit 4
D'Sena, Dorothy.....35084 Chestnut, Wayne
Dubin, Jos. J.....10401 W. Chicago Blvd., Detroit 4
Dubnove, Aaron (L).....2115 W. Grand Blvd., Detroit 8
Dubpernell, Martin S. (L)....4019 Gilbert St., Detroit 10
Dubpernell, Robt. O.....18595 Grand River, Detroit 23
Dudek, John J.....16401 Grand River, Detroit 27
Dumke, Paul R.....2799 W. Grand Blvd., Detroit 2
Duncan, James R.....8633 John R St., Detroit 2
Dundas, Edward M., Jr.....4700 Schlaff, Dearborn
Dunlap, Henry A.....7815 Jefferson Ave. E., Detroit 14
Dunn, Cornelius E.....3496 Burns, Detroit 14
Dupler, Gerald E.....10 Peterboro, Detroit 1
Durham, Everett W...23100 Cherry Hill Rd., Dearborn 7
Durham, Robt.....Henry Ford Hosp., Detroit 2
Durocher, Edmund J. (L).....4158 W. Jefferson Ave., Ecorse 18
Dutcher, Dwight J.....711 S. Oxford, Detroit 36
Duwe, Frank A.....25296 Fenkell, Detroit 39
Dwaihy, Paul J.....14530 E. Warren, Detroit 15
Dwyer, Francis W.....14440 W. McNichols, Detroit 35
Dyer, H. Lorne.....718 Grandview, Northville
Dykema, Rosemary M.....18424 Mack Ave., Detroit 36
Dziuba, John F.....18901 W. Warren Ave., Detroit 28
Dzul, Paul.....14620 E. 7 Mile Rd., Detroit 5

Eades, Chas. C.....19635 Mack Ave., Detroit 36
Eadie, Gordon A.....16083 Southampton St., Livonia
Eakins, F. J. (R).....Henderson County, Robards, Ky.
Easterly, Robt. L.....1404 Ford Avenue, Wyandotte
Eaton, Crosby D.....3011 W. Grand Blvd., Detroit 2
Echt, Raymond J.....Box 3059, Detroit
Eckhous, Arthur W.....1015 Kales Bldg., Detroit 26
Economy, Donald E.....7854 Kentucky, Dearborn
Eder, Saml. J. (L).....5057 Woodward Ave., Detroit 2
Edgar, Irving I.....5057 Woodward Ave., Detroit 2
Edmonds, Gerald W.....19795 St. Marys Ave., Detroit 35
Edmonds, Wm. N. (L).....18525 Merriman Rd., Livonia
Edmondson, Robt. B.....18501 Mack Ave., Detroit 36
Edwards, James G.....17751 E. Warren Ave., Detroit 24
Egan, Charles F.....Wyandotte Gen. Hosp., Wyandotte
Eisenbrey, A. B.....Henry Ford Hosp., Detroit 2
Eisman, Clarence H. (L).....1121 Whittier Rd., Grosse Pointe 30
Eldredge, Edward F...18540 Mack Ave., Grosse Pointe 36
Elliott, Robt. N.....976 Maccabees Bldg., Detroit 2
Elliott, Wm. G.....4101 Fenkell Ave., Detroit 38
Ellis, Frank R.....800 S. Lafayette, Dearborn 7
Elman, Meyer J.....108 W. Hancock, Detroit
Elson, Abraham L. (A)..20236 Westmoreland, Detroit 19
Elvidge, Robt. J.....2900 W. Grand Blvd., Detroit 2
Emmert, Herman C. (L)..4927 N. 34th, Arlington 7, Va.
Endler, Gerhard C...1394 Roslyn Rd., Grosse Pte. Woods
Enfroy, Henri L.....19980 Shrewsburg, Detroit 21
Engel, Earl H.....2336 Van Alstyne Blvd., Wyandotte
Engstrom, Fredk. W.....2021 Monroe, Dearborn
Engstrom, Ruby M.....1777 Culver Ave., Dearborn
Eno, Laurel S.....212 Eastland Prof. Bldg., Detroit 36
Ensign, Dwight C.....Franklin
Erickson, Eldon W.....25750 W. Outer Dr., Lincoln Park
Erickson, Miles A.....1932 Ford Ave., Wyandotte
Erman, Jos. M.....9225 Grand River, Detroit 4
Ernest, Reginald H.....Grace Hospital, Detroit
Eschbach, Jos. W.....935 S. Military St., Dearborn
Eurs, Frank J.....1340 Maccabees Bldg., Detroit 2
Evans, Gomer P., Jr.....1553 Woodward Ave., Detroit 26
Evans, Jos. M.....16431 Harper, Detroit 24
Evison, Emerson O.....1003 Hawthorne Rd., Grosse Pointe Woods
Ewing, Chas. H.....17120 E. Warren, Detroit 24
Eyler, Wm. R.....2799 W. Grand Blvd., Detroit 2
Eyres, Alfred E.....17800 E. 8 Mile, Detroit 36

Faello, Sebastian J.....16840 E. Warren Ave., Detroit 24
Fagin, Irving D.....18254 Livernois Ave., Detroit 21
Fahim, Ramfis B.....226 Eastland Prof. Bldg., Detroit 36
Failing, John F., Jr...Wayne Co. General Hospital, Eloise
Falick, Mordecai L.....3011 W. Grand Blvd., Detroit 2
Falk, Ira E.....17411 Cherrylawn, Detroit 21
Fallis, Lawrence S.....2799 W. Grand, Detroit 2
Fandrich, Theodore S. (R).....108 Loma Media Rd., Santa Barbara, Calif.
Farbman, Aaron A.....14515 Kercheval, Detroit 15
Farmer, Wm. L., Jr.....8633 John R St., Detroit 2
Farnam, Larry M., Jr.....19787 Mack Ave., Detroit 36
Faunce, Sherman P.....1824 Seminole St., Detroit 14
Fea, John F.....Mt. Carmel Mercy Hosp., Detroit 35
Feigelson, Howard H.....Sinai Hospital, Detroit 35
Felcyn, W. Geo.....2091 W. Grand Blvd., Detroit 8
Feld, David.....15101 W. McNichols Rd., Detroit 35
Feldkamp, Lee E.....360 N. Main, Plymouth
Feldman, Nathanial L...24370 Tamarack Cir., Southfield
Feldman, Paul H.....16800 Greenfield, Detroit 35
Feldstein, Martin Z.....13345 W. McNichols Rd., Detroit 35
Fellner, Wm. A.....3202 Gen. Motors Bldg., Detroit 2
Fenech, Harold B.....324 Professional Bldg., Detroit 1
Fenner, Wm. G.....12454 E. Outer Dr., Detroit 24
Fennessey, John F.....512 Rivard, Grosse Pointe 30
Fenton, Edwin H.....15125 Grand River Ave., Detroit 27
Fenton, Meryl M.....8600 W. McNichols Rd., Detroit 21
Fenton, Russell F.....15125 Grand River Ave., Detroit 27
Fenton, Stanley C.....15618 E. Warren, Detroit 24
Fentress, Vance.....641 D. Whitney Bldg., Detroit 26

Feringa, Philip J.....20901 Moross Rd., Detroit 36
Ferrara, Richard J...20045 Mack Ave., Grosse Pte. Woods
Ferrara, Virginia M.....18422 Woodward, Detroit 3
Ferris, George N.....17187 Schaefer Rd., Detroit 35
Ferszt, Marion S.....18019 Rutherford, Detroit 35
Figiel, Leo S.....719 Berkshire, Grosse Pointe 30
Figiel, Steven J.....4160 John R St., Detroit 1
Filkin, Lawrence E.....621 Fairbrook, Northville
Fill, Leon.....987 E. Jefferson, Detroit 7
Finch, Alvis D.....18000 Jas. Couzens Hwy., Detroit 35
Finch, F. Sinclair.....894 N. Renaud, Detroit 36
Finck, Jerome H.....25841 Plymouth, Detroit 39
Fine, Edward.....1112 Kales Bldg., Detroit 26
Fine, Gerald.....Henry Ford Hosp., Detroit 2
Fink, Saml.....10161 Burton, Oak Park
Finkell, Lawrence J.....15231 W. 7 Mile Rd., Detroit 35
Finkelstein, Lionel (A).....15833 Appoline, Detroit 27
Finkelstein, M. B.....18254 Livernois, Detroit 21
Firnschild, Paul G. (A).....2966 Biddle, Wyandotte
Fischer, Fredk. J.....654 Fisher Bldg., Detroit
Fischhoff, Jos.....18674 Fairfield, Detroit 21
Fishbein, Herbert L.....987 E. Jefferson Ave., Detroit 7
Fisher, Geo. S.....1709 D. Whitney Bldg., Detroit 26
Fisher, James M.....176 Merriweather, Grosse Pte. 36
Fisher, Ralph L.....8445 E. Jefferson Ave., Detroit 14
Fitzgerald, C. H.....Wayne Co. Gen. Hosp., Eloise
Fitzgerald, James M.....2536 W. Grand Blvd., Detroit 8
Fitzpatrick, F. W.....17300 Schaefer, Detroit 35
Flaherty, Henry J.....19600 W. McNichols Rd., Detroit 19
Flaherty, Norman W.....24315 Fairmont Dr., Dearborn
Flake, Thomas M.....5050 Joy Rd., Detroit 4
Fleming, Jos. L.....7360 LaSalle Blvd., Detroit 6
Flora, Wm. R.....8100 E. Jefferson Ave., Detroit 14
Flower, James A.....14140 Puritan Ave., Detroit 27
Floyd, William S.....19105 W. 7 Mile Rd., Detroit 19
Fogt, Herbert E. (L).....11801 Morang Dr., Detroit 24
Fogt, Robt. G.....11801 Morang Dr., Detroit 24
Foley, Hugh S. (L)..22255 W. Michigan Ave., Dearborn
Foote, John A.....1336 Southfield Rd., Lincoln Park
Ford, Geo. A. (L).....28 W. Adams Ave., Detroit 26
Fordell, Frank S.....441 S. Oakwood Ave., Detroit 17
Forgrave, Edward G.....18520 Grand River, Detroit 23
Forrer, Gordon R.....20141 Jas. Couzens, Detroit 35
Fosnaugh, Robert P.....23185 Timberline, Southfield
Foster, E. Bruce.....852 Fisher Bldg., Detroit 2
Foster, Owen C. (L)....1553 Woodward Ave., Detroit 26
Foster, Wallace M.....13700 Woodward Ave., Highland Park 3
Fowler, Melvin E.....247 E. Warren St., Detroit 1
Fraiberg, Paul L.....13001 W. Chicago Blvd., Detroit 28
Frame, Boy.....18694 Warrington Dr., Detroit 21
France, Chas. J.....838 Berkshire Rd., Grosse Pte. 30
Franjac, Marion J.....25447 Plymouth Rd., Detroit 39
Franklin, John E.....27545 Michigan Ave., Inkster
Franzen, Nils A.....19566 W. Grand River, Detroit 23
Frazer, Mary M. (L).....567 Van Dyke, Detroit 14
Frederickson, Geo. C.....1116 Maccabees Bldg., Detroit 2
Free, Harry W.....14300 W. McNichols, Detroit 35
Freedman, John.....4853 Second Blvd., Detroit 1
Freedman, Milton....18626 Santa Barbara Dr., Detroit 21
Freeman, Donald K.....881 Chalmers St., Detroit 15
Freeman, Mable.....1316 D. Broderick Tower, Detroit 26
Freeman, Michael W.....1810 Wellesley Dr., Detroit 3
Freeman, Wilmer.....940 East 7 Mile Rd., Detroit 3
Freier, Andrew A.....1151 Taylor, Detroit 2
Freier, Morton L.....13051 Puritan Ave., Detroit 27
Freilich, Olga.....Detroit Memorial Hospital, Detroit 26
Freitas, Eugene L.....St. Johns Hosp., Detroit 36
Fremont, J. Courtney.....1202-4 David Whitney Bldg., Detroit 26
Frenkel, Eugene P. (A).....University Hosp., Ann Arbor
Frey, James L.....1553 Woodward Ave., Detroit 26
Fried, Samuel.....16850 Joy Rd., Detroit 28
Friedlaender, Alex S.....10300 W. 7 Mile Rd., Detroit 21
Friedlaender, Sidney.....10300 W. 7 Mile Rd., Detroit 21
Friedlander, Joseph.....7411 Third, Detroit 2
Friedman, David.....2429 E. Milwaukee Ave., Detroit 11
Friedman, Isidor H.....3773 2nd Ave., Detroit 1
Friedman, Seymour.....5132 Allen Rd., Allen Park
Fritz, Geo. E.....22101 Moross Rd., Detroit 36
Frost, Harold M.....Henry Ford Hospital, Detroit 2
Fryfogle, James D.....C.D. 8, Medical Concourse, Northland Center, Southfield
Fuller, Hugh M.....1257 D. Whitney Bldg., Detroit 26
Gaffney, J. Mitchell.....13600 Ohio, Detroit 21
Gagliardi, Carl A.....3516 Fort St., Lincoln Park
Gahagan, Thomas.....Henry Ford Hosp., Detroit 2
Gajewski, John E.....Parke Davis & Co., Detroit 32
Galantowicz, H. C.....7433 Michigan Ave., Detroit 10
Galantowicz, Thos. H...20217 Ann Arbor Trail, Dearborn
Galdonyi, Laslo.....2311 D. Broderick Tower, Detroit 26
Galdonyi, Nicholas (L).....8001 W. Jefferson Ave., Detroit 17
Galerneau, Darrel B.....7394 Engleman, Centerline
Gall, Henry.....275 W. Grand Blvd., Detroit 16
Gallant, Vincent J.....53 Chicago Bldg., Detroit 2
Ganos, Thos.....6742 Park Ave., Allen Park
Gans, Robert I.....7310 W. 7 Mile Rd., Detroit 21
Ganschow, John H.....1840 Holbrook Ave., Detroit 12
Gardner, Lawrence W.....6071 W. Outer Dr., Detroit 35
Gardner, Max L.....19557 Mack Ave., Grosse Pointe
Gariepy, Louis B.....16401 Grand River St., Detroit 27
Gariepy, Louis J. (L)..16401 Grand River St., Detroit 27
Gass, H. Harvey.....958 Fisher Bldg., Detroit 2
Gaston, Herbert B.....7501 W. Morrow Circle, Dearborn
Gates, Nathaniel (L).....516 Professional Bldg., Detroit 1
Gehring, Harold W.....20211 Greenfield, Detroit 35
Geib, Ledru O. (L).....3528 Van Dyke Ave., Detroit 14
Geitz, Wm. A. (R).....Box 1133, Boca Raton, Fla.
Gelbach, Philip D.....2900 S. Fort St., Detroit 17
Gemeroy, Jos. C.....962 Fisher Bldg., Detroit 2
Gerbasi, Francis....81 Lochmoor Blvd., Grosse Pte. Shores
Gerisch, Robt. A.....1217 D. Whitney Bldg., Detroit 26
Gerondale, Elmond J.....3001 W. Grand Blvd., Detroit 2
Gibson, Dunbar P.....Box 1256, Detroit 31
Gibson, Wm.....7440 Mack Ave., Detroit 14
Giese, Fred W.....18526 Schoolcraft, Detroit 23
Gigante, Nicola.....10 Peterboro, Detroit 1
Gigliotti, David.....2500 W. Grand Blvd., Detroit 8
Gilbert, Harold R.....13146 Phelps, Wyandotte
Gillespie, Stephen M.....23100 Cherry Hill, Dearborn
Gilpin, Watson A.....1539 Lockridge, Bloomfield Hills
Gilreath, James L.....8751 Linwood, Detroit 6
Gimbel, Nicholas S.....1800 Tuxedo, Detroit 6
Ginsberg, Harold I.....15344 McNichols Rd., Detroit 35
Gitlin, Chas. (A).....2424 Oakman Blvd., Detroit 36
Gittins, Perry C.....20210 Renfrew Ave., Detroit 21
Givens, Donovan H.....3453 Charlevoix Ave., Detroit 7
Gizynski, Waldemar E.....15400 Edington Rd., Livonia
Glas, Wayne W.....Wayne Co. Gen. Hosp., Eloise
Glasgow, Gordon K.....1174 3 Mile Rd., Grosse Pointe 30
Glassman, Saml. (L).....9233 Emerson Surf Side, Miami Beach, Fla.
Glazer, Walter S.....1490 Charrington Rd., Birmingham
Glees, John L.....P.O. Box 1318, Detroit
Glemet, Raymond B. (L)....3314 Bagley Ave., Detroit 16
Glikman, Victor.....20131 James Couzens, Detroit 35
Glowacki, Ben F.....5057 Woodward Ave., Detroit 2
Glowacki, Edward T.....5224 St. Antoine St., Detroit 2
Godley, Alegro J.....18060 Conant St., Detroit 34
Goerke, Elmer A.....36663 Goddard Rd., Romulus
Goetz, Angus G.....1553 Woodward Ave., Detroit 26
Goins, Wm. F.....6675 Tireman, Detroit 4
Goldberg, Arthur.....340 E. 8 Mile Rd., Detroit 3
Goldberg, Harry H. (L)..2211 Woodward Ave., Detroit 1
Goldberg, Nathan H. (L).....2211 Woodward Ave., Detroit 1
Golden, Alfred.....26764 York Rd., Huntington Woods
Goldfaden, Alfred.....6658 W. Fort St., Detroit 9
Goldman, Aubrey.....17191 Jas. Couzens, Detroit 35
Goldman, Leonard....8830 W. McNichols Rd., Detroit 21
Goldman, Perry.....16805 Princeton, Detroit 21
Goldrath, Milton H.....10326 W. 7 Mile Rd., Detroit 21
Goldstein, Abe. S.....18450 North Lawn, Detroit 21

Goldstein, Sidney.....12950 W. Chicago, Detroit 28
Goldstone, Rubie R. (L).....10 Peterboro, Detroit 1
Gollman, Maurice D.....5057 Woodward Ave., Detroit 2
Gomez, Manuel R.....5224 St. Antoine St., Detroit 2
Gomley, Romuald H.....7220 Gratiot Ave., Detroit 13
Gonne, Wm. S. (R).....18903 Fairfield Ave., Detroit 21
Goodman, Maxwell M.....22265 Garrison, Dearborn
Goodman, Virgil P.....762 Bedford Rd., Grosse Pte. Park
Goodwin, Warren W.....20131 James Couzens, Detroit 35
Goodwin, William P.....3806 Pasadena, Detroit 38
Gordon, John W. (R)....12700 Mendota Ave., Detroit 38
Gordon, Wm. E.....18058 Greenfield, Detroit 35
Gorelick, Martin J.....23901 Michigan Ave., Dearborn
Gorning, Raymond P...857 Marlborough Ave., Detroit 15
Goryl, Stephen V.....21501 Kelly, East Detroit
Goss, Saml. B.....10 Peterboro, Detroit 1
Gostine, Edmond J.....9750 Chalmers, Detroit 5
Gottlieb, Jacques S.....951 E. Lafayette, Detroit 7
Gottschalk, Fred W. (L).....5057 Woodward Ave., Detroit 2
Gould, Sylvester E.....Wayne Co. Gen. Hosp., Eloise
Goux, Raymond S. (L).....545 David Whitney Bldg., Detroit 26
Grace, Jos. M.....27453 Rainbow Circle, Lathrup Village
Grady, Jos. A.....946 Three Mile Dr., Detroit 30
Grafflin, Allan L.....Henry Ford Hosp., Detroit 2
Graham, John G., Jr.....491 Lincoln Rd., Grosse Pte. 30
Grajewski, Leo E. (L).....13587 Hunter, Capac
Granger, Francis L.....14160 Gratiot Ave., Detroit 5
Granger, George R.....705 D. Whitney Bldg., Detroit 26
Grant, Abraham H.....18024 Sorrento, Detroit 35
Grant, Heman E. (L).....Lewiston
Gratton, Henri L. (L).....76 W. Adams Ave., Detroit 26
Graves, James H.....Receiving Hospital, Detroit 26
Gray, Howard O.....5050 Joy Rd., Detroit
Greek, Louis M.....12901 E. McNichols, Detroit 5
Green, Edward W.....2799 W. Grand Blvd., Detroit 2
Green, Ellis R. (L).....5172 Scotten Ave., Detroit 10
Green, Henry L. (M).....15540 Killarney St., Howard Beach, New York, N. Y.
Green, Lewis.....13000 Grand River, Detroit 27
Green, Louis M.....14636 E. 7 Mile Rd., Detroit 5
Green, Nelson W.....15800 W. McNichols, Detroit 35
Greenberg, Jack R.....15743 W. 7 Mile Rd., Detroit 35
Greenberg, Julius J.....5238 W. Outer Drive, Detroit 35
Greenberg, Morris Z.....9105 Van Dyke, Detroit 13
Greenberg, Stanley.....660 Maccabees Bldg., Detroit 2
Greene, John B.....2179 W. Grand Blvd., Detroit 8
Greene, Thomas J.....12311 Hamilton, Detroit 3
Greenidge, Robt. I. (L).....4839 Beaubien, Detroit 1
Greenlee, Wm. T.....15053 Maddelein, Detroit 5
Greenslit, Frank S.....U.S. Vets Admin. Hosp., Dearborn
Gregory, Louis J.....47 Webber Place, Detroit 36
Greifenstein, F. E.....1401 Rivard, Detroit 7
Greiner, Bert A.....14607 E. 7 Mile Rd., Detroit 5
Grekin, John N.....7421 W. 7 Mile Rd., Detroit 21
Griffin, Robert J.....17401 Mack Ave., Detroit 24
Griffiths, Sydney J.....15400 Plymouth Rd., Detroit 27
Grimaldi, Gregory J.....2983 Seminole, Detroit 14
Grinstein, Alexander.....18466 Wildemere, Detroit 21
Grishkoff, M. A.....2201 E. Jefferson, Detroit 7
Griva-Lizlovs, S.....29901 Ford Rd., Garden City
Grob, Otto.....7385 Parkstone Lane, Birmingham
Gronemeyer, Wm. H.....1800 Tuxedo, Detroit 6
Gross, Louis.....18937 Van Dyke St., Detroit 34
Grossman, Solomon C.....538 Maccabees Bldg., Detroit 2
Guerrero, Jose.....13700 Woodward, Detroit 3
Guidot, Julian M.....16401 Grand River, Detroit
Guimaraes, Abilio S.....7301 Schaefer Hwy., Dearborn
Guinan, Geo. E.....27614 Gainsborough, Inkster
Gulick, Arthur E.....4160 John R, Detroit 1
Gurdjian, Elisha S.....1553 Woodward Ave., Detroit 26
Gurskis, Eugenia E.....504 Kales Bldg., Detroit 26
Gustafson, David C.....1 Lafayette, Detroit 7
Gutow, Benjamin R.....7441 W. 7 Mile Rd., Detroit 21
Guyton, Jack S.....2799 W. Grand Blvd., Detroit 2
Hacker, Elaine M.....293 Merriweather Rd., Grosse Pointe Farms
Hackert, John L.....14551 Southfield Rd., Allen Park
Haddad, Benjamin F.....1010 Mich. Mutual Bldg., Detroit 26
Haddad, Elias D.....9191 Whittier, Detroit 24
Hadesman, Donald.....985 E. Jefferson, Detroit 7
Haefele, Leslie P.....29108 Ford Rd., Garden City
Hagermoser, H. H. (A).....5991 Yorkshire, Detroit 24
Hagge, Donald R.....1553 Woodward Ave., Detroit 26
Haidostian, B. H.....18456 Grand River, Detroit 23
Haitinger, K. S.....1134 Beaconsfield, Grosse Pointe
Haking, Leonard.....14014 E. 7 Mile Rd., Detroit 5
Halekas, G. Peter.....21727 Mack Ave., St. Clair Shores
Hall, Arch H.....10 Peterboro, Detroit 1
Hall, E. Walter.....14189 Rosemont Rd., Detroit 23
Hall, Ralph E.....10 Peterboro, Detroit 1
Hall, Robt. J. (L).....6014 W. Fort St., Detroit 9
Hall, Winthrop D.....5237 Oakman Blvd., Dearborn
Hallen, Leonard J.....18205 Parkside, Detroit 21
Halsted, James A.....1800 Tuxedo, Detroit 6
Hamburg, Robt. H.....1515 D. Whitney Bldg., Detroit
Hamburger, Albert C.....13345 W. McNichols, Detroit
Hamburger, Joel I...15121 W. McNichols Rd., Detroit 35
Hamburger, Stuart W...18400 Schaefer Hwy., Detroit 35
Hamil, Brenton M.....Henry Ford Hosp., Detroit 2
Hamilton, Norman C.....300 W. McNichols Rd., Detroit 3
Hamilton, Quentin P.....Medical Arts Bldg., Detroit 3
Hammer, Edwin J.....16616 Mack Ave., Detroit 24
Hammer, Roy W.....16620 E. Warren, Detroit 24
Hammond, Arthur E.....1553 Woodward Ave., Detroit 26
Hammond, James L. (L).....1911 Sunset Dr., Escondido, Calif.
Handel, Jack E.....1800 Tuxedo, Detroit 6
Hank, Emil J.....
Hansen, Fredk. E. (L).....18160 Birwood, W. Beverly Hills, Birmingham
Hansen, John W. (A).....8877 Perrin Dr., Livonia
Hanyi, Karl.....1771 Ackley, Wayne
Hardstaff, R. John (L).....648 Neff Rd., Grosse Pte. 30
Hardt, Barbara A. (A).....15867 Mansfield, Detroit 27
Hardy, Clarence M.....23019 Ecorse Rd., Taylor
Hardy, Geraldine M.....18145 Mack, Detroit 24
Hardy, Warren G.....801 D. Whitney Bldg., Detroit 26
Harelik, Ely W.....25735 Hareford, Huntington Woods
Harkaway, Roman W.....19125 Van Dyke, Detroit 34
Harley, Garth H.....300 Hampshire, Dearborn
Harley, Louis M.....4100 W. McNichols Rd., Detroit 21
Harm, Winfred B.....16260 Cherrylawn Ave., Detroit 21
Harmon, Edwin L.....441 E. Jefferson, Detroit 26
Harmon, Walter, Jr.....2510 E. Davison, Detroit 12
Harper, Jesse T.....1252 D. Whitney Bldg., Detroit 26
Harrell, Voss.....1035 Oakwood Ave., Dearborn 7
Harrington, F. L.....14341 W. McNichols, Detroit 35
Harris, A. D.....12815 Linwood, Detroit 38
Harris, Harcourt G.....9141 Dexter Blvd., Detroit 6
Harris, Harold H.....8011 W. Vernor Hwy., Detroit 9
Harris, Ivor D.....1245 D. Whitney Bldg., Detroit 26
Hart, Charles E.....23845 Van Dyke, Centerline
Hart, John C.....9341 Moffat, Detroit 13
Harten, James N.....25750 W. Outer Dr., Lincoln Park
Hartkop, Henry H.....20055 Mack Ave., Detroit 36
Hartquist, Robt. J.....1495 Fort St., Wyandotte
Hartzell, John B.....7815 Jefferson Ave. E., Detroit 14
Hasley, Clyde K.....2320 N. LaSalle Gardens, Detroit 6
Hasley, Danl. E.....1401 Rivard, Detroit 7
Hassig, Walter W.....20914 Kelly, East Detroit
Hastings, Orville J.....15744 Harper Ave., Detroit 24
Haszczyc, Vladimir A.....2730 E. Jefferson, Detroit 7
Hathaway, Hubert R.....230 Madison Ave., Detroit 26
Haubrich, Wm. S.....Henry Ford Hosp., Detroit 2
Hauf, Mary A.....10573 Morang, Detroit 24
Hause, Glen E.....18520 Grand River, Detroit 23
Hauser, I. Jerome.....7411 Third Ave., Detroit 2
Hauser, John E.....671 Fisher Bldg., Detroit 2
Hauser, Maurice J. (A).....7411 3rd Ave., Detroit 2
Hauss, Robert B.....7348 Kercheval, Detroit 14

Havers, Howard (L).....271 Kenwood Ct., Detroit 36
Hawkins, James W.....388 Prudence, Sarasota, Fla.
Hayes, A. Lewis.....15121 W. 7 Mile, Detroit 35
Hayes, Dean M.....713 D. Whitney Bldg., Detroit 26
Hazen, Roy S.....20526 Grand River Ave., Detroit 19
Heath, Leonard P.....1553 Woodward Ave., Detroit 26
Heavner, Lyle E.....119 Kercheval, Grosse Pointe 36
Hecht, Manes S.....25717 Coolidge, Oak Park 37
Heenan, Theophilus H...1553 Woodward Ave., Detroit 26
Heideman, Louis E.....20211 Greenfield Rd., Detroit 35
Heins, Marilyn.....747 Lakeland, Grosse Point 30
Heldt, Richard F.....1951 Monroe Blvd., Dearborn
Heldt, Thos. J. (L)....2799 W. Grand Blvd., Detroit 2
Hendelman, Manuel H.....17141 Hayes, Detroit 5
Henderson, Allison B.....9041 Dexter Blvd., Detroit 6
Henderson, Arthur B. (L)....10452 Mack Ave., Detroit 14
Henderson, Chas. W.....3011 W. Grand Blvd., Detroit 2
Henderson, Frederic C.....18101 E. Warren, Detroit 24
Henderson, Harold.....3011 W. Grand Blvd., Detroit 2
Henderson, Hugh W.....18101 E. Warren, Detroit 24
Henderson, Leslie T. (L)....14814 E. Warren, Detroit 15
Henderson, Wm. E. (L).....9341 Chalmers, Detroit 13
Henig, Fred N.....7605 W. 7 Mile Rd., Detroit 21
Henkin, Raymond.....17228 Shervilla, Southfield
Henkin, Wm. A.....18215 Greenfield, Detroit 35
Henrich, Laurence E.....2501 W. Grand Blvd., Detroit 8
Henry, Robert C.....16127 Baylis, Detroit 21
Herbst, Harold B.....20482 Ardmore, Detroit 35
Hergt, Klaus,.....Northland Center, Med. Concourse, Southfield
Herrold, Rose E.....1277 E. Grand Blvd., Detroit 11
Herschelmann, Roy F.....3343 Gratiot Ave., Detroit 7
Hertzler, Jack H.....3011 W. Grand Blvd., Detroit 2
Herwick, John T.....2799 W. Grand Blvd., Detroit 2
Hess, Murray W.....23860 Seneca, Oak Park 37
Heyman, Louis F.....19009 W. 7 Mile Rd., Detroit 19
Heyner, Stanley A.....3424 Oakman Blvd., Detroit 4
Hickey, Jos.....23100 Cherry Hill, Dearborn
Hicks, Fredk. G.....1000 Westwood, Birmingham
Hill, Edward J., Jr.....208 D. Whitney Bldg., Detroit 26
Hill, Raymond D.....14551 Southfield, Allen Park
Hill, Welford T.....6303 Mack Ave., Detroit
Hillenberg, Sidney J.....19350 W. 7 Mile Rd., Detroit 19
Hiller, Glenn I.....13700 Woodward Ave., Detroit 3
Hillyer, John W.....26151 Huron River Dr., Flat Rock
Hilton, Wm. E.....5013 Harding, Detroit 13
Hinchman, D. F.....27459 5 Mile Rd., Livonia
Hipps, Chauncey J.....2605 W. Grand Blvd., Detroit 8
Hirsch, Leo J.....18000 Jas Couzens Hwy., Detroit 35
Hirsch, Lore.....212 S. Melborn, Dearborn
Hirschfeld, A. H.....829 Fisher Bldg., Detroit 2
Hirschler, Charles.....28400 Plymouth, Livonia
Hirschman, Louis J. (L).....2619 Munson Ave., Traverse City
Hoagland, F. L. (A)....1260 E. Grand Blvd., Detroit 11
Hoagland, Thos. V.....81 E. Kirby, Detroit 2
Hobbs, Donald V.....27305 Southfield Rd., Lathrup Village
Hochman, Morton M.....16633 Plymouth Rd., Detroit 27
Hodges, Jason.....26401 Harper, St. Clair Shores
Hodgkinson, Chas. P.....17546 Meadwood Ave., Lathrup Village
Hoffer, Thos.....5825 Allen Rd., Allen Park
Hoffman, Ben G.....19545 Shrewsbury, Detroit 21
Hoffman, Edward A.....7615 W. Vernor Hwy., Detroit 9
Hoffman, Edwin S. (R).....8106 E. Jefferson Ave., Detroit 14
Hoffman, Harry Y.....15085 E. 7 Mile Rd., Detroit 5
Hoffman, Henry A.....10015 E. Outer Dr., Detroit 24
Hoffman, Louis.....18203 Birchcrest Dr., Detroit 21
Hoffman, Milton C.....18555 E. Warren, Detroit 36
Hoffmann, Martin H...1311 D. Whitney Bldg., Detroit 26
Hogikyan, Azat.....16901 W. McNichols Rd., Detroit 35
Holdredge, Jean M.....3011 W. Grand Blvd., Detroit 2
Hollander, Abraham J.....14327 Michigan Ave., Dearborn 2
Hollinger, F. Wayne....8265 Gen. Mtrs. Bldg., Detroit 2
Hollis, Henry B.....6809 Sirena, Detroit 10
Holloway, Janet L.....1116 Maccabees Bldg., Detroit 2
Holmes, Geo. F.....14729 Champaign, Allen Park
Holstein, Arthur P.....7850 E. Jefferson, Detroit 24
Holt, Chas. J., Jr.....1575 Faircourt, Grosse Pointe 36
Holt, Henry T.....5050 Cass St., Detroit 2
Homeister, Eugene A.....12925 Pennsylvania Ave., Wyandotte
Honhart, Fred L. (L).....1405 Berkshire Rd., Grosse Pointe 30
Hooker, Lyle T.....35519 Norris St., Wayne
Hoops, Geo. B. (L)....18415 Warrington Dr., Detroit 21
Hopkins, Andrew J.....10149 Michigan Ave., Dearborn
Hopkins, Scovell M.....5057 Woodward Ave., Detroit 2
Horkins, Earl J.....10963 Farmington Rd., Livonia
Horn, Robt. C., Jr.....2799 W. Grand Blvd., Detroit 2
Hornbeck, Robert J.....33563 W. 5 Mile Rd., Livonia
Horny, Hugo O.....619 Barrington Rd., Detroit 30
Horton, Reece H.....1553 Woodward Ave., Detroit 26
Horvath, James J.....1553 Woodward Ave., Detroit 26
Horvitz, Victor S.....
Hotchkiss, Loris M.....33220 W. 7 Mile Rd., Livonia
Howard, Philip J.....Henry Ford Hosp., Detroit 2
Howard, William K.....1800 Tuxedo, Detroit 6
Howell, Bert F.....10800 Whittier Rd., Detroit 24
Howell, James T.....2799 W. Grand Blvd., Detroit 2
Howes, Homer A.....1515 D. Whitney Bldg., Detroit 26
Howes, Willard B. (L)....4404 Samosot Rd., Royal Oak
Howlett, Howard T.....868 Fisher Bldg., Detroit 2
Hoyos, Pedro G.....1401 Rivard St., Detroit 7
Hromadko, Louis.....1053 Fisher Bldg., Detroit 2
Hubbard, John P., Jr.,....14620 E. 7 Mile Rd., Detroit 5
Huber, Philip J.....1724 Bassett, Royal Oak
Hudson, J. Stewart (L).....17443 E. Jefferson Ave., Grosse Pointe 30
Hudspeth, E. Rae.....753 Fisher Bldg., Detroit 2
Huegli, Wilfred A.....16840 E. Warren Ave., Detroit 24
Huggins, H. Horne.....8355 Gratiot, Detroit 13
Hulick, Archie G.....15525 Amherst Rd., Birmingham
Hull, Leroy W. (L)....20115 Canterbury Rd., Detroit 21
Hume, H. Ross, Jr.....1553 Woodward, Detroit 26
Huminski, Thaddeus S.....19244 Van Dyke Ave., Detroit 34
Hummel, Arthur R.....1020 3 Mile Dr., Grosse Pte. 30
Hunt, Theodore H.....19431 Van Dyke Ave., Detroit 34
Hunt, Verne G.....1553 Woodward Ave., Detroit 26
Hunter, Donald G.....3245 E. Jefferson, Detroit 17
Hunter, Robert B.....Henry Ford Hosp., Detroit 2
Husband, Chas. W. (L).....14500 W. McNichols, Detroit
Husband, Raymond C.....14500 W. McNichols, Detroit 35
Hutchins, M. Colton.....3011 W. Grand Blvd., Detroit 2
Hyatt, Jarvis M.....22340 Michigan Ave., Dearborn
Hyde, Fredk. W., Jr.....Grace Hospital, Detroit 1
Hyland, John R.....13030 Mack Rd., Detroit 15
Hysni, Aliqemal.....8031 W. Vernor Hwy., Detroit 9
Iacobell, Peter H.....19300 Van Dyke, Detroit 34
Ice, Garnet T.....18060 Conant, Detroit 34
Iglesias, Luis J.....20211 Greenfield, Detroit 35
Igna, Eli J.....2799 W. Grand Blvd., Detroit 2
Ignagni, Antonio.....275 W. Grand Blvd., Detroit 16
Ine, Myung Yul.....1800 Tuxedo, Detroit 6
Irvin, Earle A.....Ford Mtr. Co., American Rd., Dearborn
Irwin, Wm. A.....2500 W. Grand Blvd., Detroit 8
Isaacson, Arthur.....250 E. Columbia, Detroit 1
Isaacson, Harold E.....15361 Plymouth Rd., Detroit
Israel, Barney B.....5057 Woodward Ave., Detroit 2
Israel Kenneth.....10607 W. 7 Mile Rd., Detroit 21
Itkin, H. David.....1800 Tuxedo, Detroit 6
Iwata, Herbert T.....7611 Patton Ave., Detroit 28
Izner, Sanford M.....17500 Schaefer Hwy., Detroit 35
Jacknow, David.....60 W. Hancock, Detroit 1
Jackson, Winston B.....2425 Oakman, Detroit 38
Jacobs, Howard.....12730 W. McNichols Rd., Detroit 35
Jacobson, Lyle F.....645 Mullett, Detroit 26
Jacobson, Saml. D.....Wayne Co. Genl. Hosp., Eloise
Jacobus, Wayne N.....20055 Mack Ave., Grosse Pte. 36

Jaeger, Grove A.....11711 Minden, Detroit 5
Jaekel, Clarence N.....1086 E. Grand Blvd., Detroit 7
Jaffar, Donald J.....734 Maccabees Bldg., Detroit 2
Jaffe, Harold W.....1706 D. Whitney Bldg., Detroit 26
Jaffe, Jacob.....2211 Woodward Ave., Detroit 1
Jaffe, Julius L.....7463 Harper Ave., Detroit 13
Jaffe, Louis.....18662 Muirland, Detroit 21
Jahsman, Wm. E. (R).....1410 Sunset Dr., Clearwater, Fla.
Jakacki, Richard Wm.....36157 Sherwood, Livonia
Jakobovits, Thomas.....15361 Plymouth, Detroit 27
James, Thomas N.....Henry Ford Hosp., Detroit 2
Jamieson, Thos. J.....1310 Warwick, Lincoln Park
Janicki, Natalia J.....Eloise Hosp., Eloise
Jarkowski, T. L.....Harper Hospital, Detroit 1
Jarre, Hans A.....Grace Hospital, Detroit 1
Jarvis, Harold F.....14066 Linnhurst, Detroit 5
Jasion, Lawrence J. (A).....11945 Payton, Detroit 24
Jaslow, Robt. I.....Plymouth St. Home & Trng. Sch., Northville
Jaynes, Richard V.....29901 Ford Rd., Garden City
Jeffries, Benj.....16321 Mack Ave., Detroit 24
Jend, Wm., Jr.....1365 Cass Ave., Detroit 26
Jend, Wm. J. (L).....12781 E. Outer Dr., Detroit 24
Jenkins, Elwood A.....1102 D. Whitney Bldg., Detroit 26
Jennings, Chas. G.....17700 Mack Ave., Grosse Pte. 30
Jensen, Viggo W.....532 Lincoln Rd., Detroit 30
Jentgen, Chas. J. (L).....22101 Moross Rd., Detroit 36
Jeremias, Robt. C.....3652 Erie Dr., Orchard Lk. Vil.
Jevons, William H.....21309 River Rd., Grosse Pte. Wds.
Jewell, F. C.....159 Kercheval Ave., Detroit 36
Jewell, John S.....2021 Monroe, Suite 203, Dearborn
Jocz, Marion W.....945 Trombley Rd., Detroit 30
Jodar, Emery O.....15760 Mack Ave., Detroit 24
Jodar, Loyal W.....19515 Mack, Grosse Pte 36
John, Hubert R.....5057 Woodward Ave., Detroit 2
Johnson, Aran S.....1462 Hollywood, Grosse Pte. Wd. 30
Johnson, Arthur.....Henry Ford Hospital, Detroit 2
Johnson, Gage (A).....3395 Scranton, Cleveland, Ohio
Johnson, Homer L.....2799 W. Grand Blvd., Detroit 2
Johnson, Ralph A.....7815 E. Jefferson Ave., Detroit 14
Johnson, Simon O.....Cadillac Sq. Bldg., Detroit 26
Johnson, Thos. D.....20526 Grand River, Detroit 19
Johnson, Verne E.....2051 Monroe Ave., Dearborn
Johnson, Vernon P.....21327 Harper Ave., St. Clair Shores
Johnson, Wilbur E.....14654 Gratiot, Detroit 5
Johnson, Wm. H. M.....7157-63 Michigan, Detroit 10
Johnston, Everett V.....3919 John R St., Detroit 1
Johnston, John L. (A).....1950 W. McNichols Rd., Detroit 3
Johnston, Jos. A.....Henry Ford Hosp., Detroit 2
Johnston, Wm. E.....3011 W. Grand Blvd., Detroit 2
Johnstone, Benj. I.....555 Fisher Bldg., Detroit 2
Joinville, Euclide V. (L).....1202 Stroh Bldg., Detroit 26
Jones, Arnold M.....3706 Sturtevant, Detroit 6
Jones, Adrian R.....15309 Mack Ave., Detroit 24
Jones, Roy D.....10234 Puritan Ave., Detroit 38
Jones, Wm. J.....8209 Allen Rd., Allen Park
Joos, Thad H.....20861 Mack, Grosse Pte Woods
Jordan, Prescott, Jr.....645 Mullett St., Detroit 26
Jordan, R. Gerald.....12410 Van Dyke, Detroit 34
Joyce, Stanley J.....1078 Fisher Bldg., Detroit 2
Joyrich, Myron H.....Sinai Hospital, Detroit 35
Juliar, Benj.....17305 Muirland Ave., Detroit 21
Jungwirth, R. V.....19350 W. McNichols Rd., Detroit 19

Kackley, James E.....18514 Mack Ave., Detroit 36
Kaine, Henry D.....3011 W. Grand Blvd., Detroit 2
Kalayjian, Bernard S.....14195 Long Acre Rd., Detroit 27
Kalichman, Nathan.....18440 Livernois, Detroit 21
Kallenbach, Rudolf W.....388 Inkster Rd., Inkster
Kallet, Herbert I.....5057 Woodward Ave., Detroit 2
Kallet, Maerit B.....1800 Tuxedo, Detroit 6
Kallman, David.....2351 W. Grand Blvd., Detroit 8
Kallman, Leo.....2351 W. Grand Blvd., Detroit 8
Kallman, Reuben R.....2631 Woodward Ave., Detroit 1
Kamil, Richard S.....14438 McNichols, Detroit 35
Kamin, Louis E. (A).....3395 Cambridge, Detroit 21
Kaminski, Zeno L. (L).....3510 24th St., Detroit 8
Kane, Archibald V.....2500 W. Grand Blvd., Detroit 8
Kansa, Selma.....19431 Van Dyke, Detroit 34
Kanter, Herman (A).....13127 W. 7 Mile Rd., Detroit 35
Kapetansky, A. J.....1728 Clairmount, Detroit 6
Kapetansky, Don I.....18400 Schaefer, Detroit 35
Kapetansky, Nathan J.....1728 Clairmount, Detroit 6
Kaplita, Walter A.....60 Fontana Lane, Grosse Pte Shores
Karch, Saul.....18080 Muirland, Detroit 21
Kasabach, Harry Y.....1553 Woodward Ave., Detroit 26
Kasabach, Vahram Y.....523 Book Tower, Detroit 26
Kashtan, Harry A.....17300 Schaefer, Detroit 35
Kasper, Jos. A.....19953 Clairview Ct., Detroit 36
Kaspor, Albert J.....20901 Moross Rd., Detroit 36
Kass, Arnold.....1316 David Stott Bldg., Detroit 26
Katz, Lawrence.....987 E. Jefferson, Detroit 7
Katz, Martin.....7300 Harding, Taylor
Katzman, Harold L.....412 Fox Bldg., Detroit 1
Katzman, Irving S.....412 Fox Bldg., Detroit 1
Kaufman, Jack H.....12901 W. 7 Mile, Detroit 35
Kaufman, Jacob M.....618 D. Whitney Bldg., Detroit 26
Kaufman, Louis W.....10326 W. 7 Mile, Detroit 21
Kauppinen, Jalo A.....15400 Plymouth Rd., Detroit 27
Kawchak, James.....Ford Motor Co., Dearborn
Kawecki, Lucian.....10734 Hart Ave., Huntington Woods
Kawel, Conrad A., Jr.....27459 W. Warren, Garden City
Kazdan, Morris.....4619 Allen Road, Allen Park
Keating, Thos. F. (L).....20936 W. Grand River Ave., Detroit 19
Kehoe, Henry J.....15252 Gratiot Ave., Detroit 5
Keith, Kelly.....106 W. Davison Ave., Highland Park 3
Keith, Rachel H. C. B.....5353 Joy Rd., Detroit 4
Kelley, Frank J.....3919 John R St., Detroit 1
Kelly, A. P., Jr.....Henry Ford Hosp., Detroit 2
Kelly, Edward W., Jr.....156 Harmon St., Detroit 2
Kelly, John J.....14729 Champaign, Allen Park
Kelly, L. J.....14015 Gratiot, Detroit 5
Kelmenson, Victor A.....7356 12th St., Detroit 6
Kelson, Malcolm J.....1045 Harvard, Detroit 30
Kemler, Walter J.....4045 W. Jefferson Ave., Ecorse 29
Kennary, James M.....4900 Cadieux Rd., Detroit 24
Kennary, James M., Jr.....4900 Cadieux Rd., Detroit 24
Kennedy, Chas. S. (L).....10 Peterboro St., Detroit 1
Kennedy, Donald J.....1220 Livernois Ave., Detroit 9
Kenning, John C. (A).....1289 Paseo Del Mirodor, Palm Springs, Calif.
Kernick, Melvin O.....13700 Woodward Ave., Highland Park 3
Kernkamp, Ralph F.....10 Witherell, Detroit 26
Kerzman, Jos. H.....810 Kales Bldg., Detroit 26
Kessel, Karl J.....18031 Kelly Rd., Detroit 24
Kessler, Chas.....15105 W. 7 Mile Rd., Detroit 35
Keyes, John W.....Henry Ford Hosp., Detroit 2
Killins, Chas. G.....8100 E. Jefferson, Detroit 14
Kimberlin, K. K., Jr.....11110 Morang Dr., Detroit 24
King, Edward D.....270 Rivard Blvd., Grosse Pte. 30
King, Melbourne J.....5435 W. Vernor Hwy., Detroit 9
Kingswood, Roy C.....1078 Fisher Bldg., Detroit 2
Kinsley, George.....15105 W. 7 Mile Rd., Detroit 35
Kitzmiller, John L.....15800 W. McNichols Ave., Detroit 35
Klaiber, Roger G.....5766 Hereford, Detroit 24
Klein, Herman.....24030 Marlow St., Oak Park
Klein, Howard A.....1838 D. Whitney Bldg., Detroit 26
Klein, Sander P.....14825 W. McNichols Rd., Detroit 35
Klein, Wm.....13965 Linwood, Detroit 38
Kleinman, Shmarya (L).....1800 Tuxedo, Detroit 6
Kliger, David.....7756 Southfield, Detroit 28
Klimchuk, M. M.....31225 E. Jefferson, St. Clair Shores
Kling, Murray G.....18400 Schaefer Hwy., Detroit 35
Klosowski, Jos.....8222 E. Outer Drive, Detroit 13
Kluck, Clarence J.....25210 Grand River, Detroit 40
Klutke, Geo. H. E.....2841 Monroe, Dearborn
Knaggs, Earl J.....2387 Fort St., Wyandotte
Knapp, Floyd B. (R).....16565 Birwood, Detroit 27
Knapp, Gordon R. (R).....422 W. Goldengate, Detroit 3

Knapp, Wm. L.....20100 W. McNichols Rd., Detroit 19
Knighton, Robert S.....2799 W. Grand Blvd., Detroit 2
Knobloch, Edmund J.....5933 Chene St., Detroit 11
Knoblauch, Kenneth H.....952 Fisher Bldg., Detroit 2
Knox, Ross M.....9 Salliotte Rd., Ecorse 29
Kobernick, Sidney D.....6767 W. Outer Dr., Detroit 35
Kobiljak, Stefan H.....3516 Fort St., Lincoln Park
Koebel, Raymond H.....640 Bedford Lane, Grosse Pte. 30
Koek, Hendrik J.....23100 Cherry Hill, Dearborn
Koerber, Edward J.....4876 Lakeview Ave., Detroit 15
Kogut, Constantine S.....10627 Puritan, Detroit 38
Kokowicz, Raymond J.....19440 Van Dyke, Detroit 34
Kolman, Isadore I.....1800 Tuxedo, Detroit 6
Kopmeyer, Joseph M., Jr.....17632 Grandville, Detroit 19
Koran, Valentine L.....5057 Woodward Ave., Detroit 2
Koren, Louis.....3825 Brush, Detroit 1
Korum, Lyle W.....18585 E. Warren St., Detroit 36
Koschnitzke, H. K.....1221 Lincoln, Lincoln Park
Kossayda, Adam W.....15324 Michigan Ave., Dearborn
Kovach, Emery P.....9750 Chalmers, Detroit 13
Kovan, Dennis D.....16965 Hamilton Ave., Highland Park 3
Kowaleski, John J.....9646 Vine, Allen Park
Kozlinski, Anthony E.....2195 E. Grand Blvd., Detroit 11
Krabbenhoft, K. L.....3825 Brush St., Detroit 1
Kraft, Ruth M.....655 Hamilton Rd., Birmingham
Krakauer, Bernard.....18424 W. McNichols Rd., Detroit 19
Krass, Edward W.....11088 Gratiot Ave., Detroit 13
Kraus, John J.....16840 E. Warren Ave., Detroit 24
Krawec, Charles J.....Mt. Carmel Mercy Hospital, Detroit 35
Krebs, Wm. T.....16419 E. Warren Ave., Detroit 24
Kreinbring, Geo. E.....14295 E. 7 Mile Rd., Detroit 5
Kretzschmar, John C.....660 E. Grand Blvd., Detroit 7
Krevsky, David A.....8461 Park, Allen Park
Krevsky, Harold.....8461 Park Ave., Allen Park
Krieg, Earl G.....85 Kercheval Ave., Grosse Pte. Farms
Krieger, Harley L. (R).....11390 Strathmoor, Detroit 27
Krieger, Harvey.....954 Fisher Bldg., Detroit 2
Krieger, Ingeborg (A).....13112 Ladlow, Huntington Wds.
Kritchman, Maurice J.....10 Witherell St., Detroit 26
Kroha, Lawrence A.....15124 Kercheval Ave., Detroit 30
Krohn, Lawrence H.....24340 W. McNichols Rd., Detroit 19
Kroll, Harvey V.....7815 E. Jefferson, Detroit 14
Krynicki, Francis X.....15101 W. 7 Mile, Detroit 35
Krystal, Henry.....19210 Coyle, Detroit 35
Kubanek, Jos. L.....23134 Myrtle, Dearborn
Kucmierz, Francis S.....18934 Van Dyke Ave., Detroit 34
Kuehn, Ned N.....20243 Burgess Ave., Detroit 19
Kuhn, Albert A.....635 W. 7 Mile Rd., Detroit 3
Kuhn, Henry H.....635 W. 7 Mile Rd., Detroit 3
Kuhn, Richard F.....1700 Junction Ave., Detroit 9
Kujawski, Walter F.....16840 E. Warren, Detroit 24
Kulaski, Chester H.....9309 Joseph Campau Ave., Detroit 12
Kullman, Harold J.....Vet. Admin. Hosp., Dearborn
Kuran, Lionel V.....14853 Michigan, Dearborn
Kurcz, Jos. A.....7433 Michigan Ave., Detroit 10
Kurtz, Irvin J.....25210 Grand River, Detroit 40
Kurtzman, Raymond S.....Detroit Memorial Hosp., Detroit 26
Kutsche, John D.....3794 Fort St., Trenton
Kvietys, Benj.....27235 Joy Rd., Dearborn
Kwasiborski, S. A.....2300 Oak St., Wyandotte
Kyprie, H. M. (A).....708 Kales Bldg., Detroit 26

Laberge, James M.....100 Oak, Wyandotte
Lackey, Lawrence S.....525 Visger, Ecorse
Laderach, David C.....716 Marquette Dr., Detroit 14
La Ferte, Alfred D. (L).....520 St. Clair, Grosse Pte. 30
Laham, M. M.....2929 Fort St., Wyandotte
Lahood, Michael J.....17555 Jas Couzens Hwy., Detroit 35
Laige, Raymond J.....P.O. Box 1259, Detroit 31
Lakatos, George C.....33000 Palmer, Wayne
Lake, Robt. C.....8445 E. Jefferson, Detroit 14
Lakin, Alan C.....10326 W. 7 Mile Rd., Detroit 21
Lakin, Mervyn H.....10601 W. 7 Mile Rd., Detroit 21
Lakoff, Chas. B. (L).....10234 W. 7 Mile Rd., Detroit 21
Lam, Conrad R.....28130 Westbrook Ct., Farmington
Lamberson, Frank A.....19001 Grand River, Detroit 23
Lammy, James V.....776 Maccabees Bldg., Detroit 2
LaMont, Richard L.....861 Monroe, Dearborn
Lampman, Harold H.....3011 W. Grand Blvd., Detroit 2
Landers, James W.....1401 Rivard, Detroit 7
Landers, Maurice B.....275 W. Grand Blvd., Detroit 16
Lang, Ernst F.....Harper Hospital, Detroit 1
Lange, Wm. A.....1041 Cadieux Rd., Grosse Pte. 30
Langston, John D.....1420 St. Antoine St., Detroit 26
Laning, Geo. M. (L).....R.D. Morey Rd., Sharon, Conn.
Lansing, Eugene H.....33020 Palmer Rd., Wayne
Lansky, Mandell.....16339 E. Warren, Detroit 24
Large, Alfred M.....1553 Woodward Ave., Detroit 26
Largo, Donald J.....16717 Warwick, Detroit 19
Larkin, Duane R.....28435 Plymouth, Livonia
Larned, Richard I.....15208 Bringard, Detroit 5
Larsen, Edward G.....1803 Trenton Dr., Trenton
Larsen, Robt. D.....76 W. Adams Ave., Detroit 26
Larson, Chas. J.....12729 Cunningham, Wyandotte
Larson, Francine S. (A).....18865 Haggerty Rd., Northville
Larsson, Bror H. (L).....3919 John R St., Detroit 1
Lasichak, Andrew G.....76 W. Adams Ave., Detroit 26
Lasley, James W.....1014 D. Whitney Bldg., Detroit 26
Latimer, Fredk. R.....28 W. Adams, Detroit 26
Latteier, Karl K.....968 Yarmouth, Birmingham
Lauppe, Edward H.....1553 Woodward Ave., Detroit 26
Lauppe, Fredk. A.....1553 Woodward Ave., Detroit 26
Laura, Albert L.....9105 Harrison, Livonia
Laurisin, Eugene.....16554 Muirland, Detroit 21
Lauter, Eric W.....1800 Tuxedo, Detroit
Lawhead, Nixon R.....7348 Kercheval Ave., Detroit 14
Lawrence, Louis F.....17300 Schaefer Rd., Detroit 35
Lawson, James M.....2605 W. Grand Blvd., Detroit 8
Lawson, John W. (A).....98 Hazelwood Ave., Detroit 2
Lazar, Morton R.....7401 Third Ave., Detroit 2
Leach, David.....3011 W. Grand Blvd., Detroit 2
Leach, Robt. B.....1401 Rivard St., Detroit 7
Leacock, Robt. C.....440 University Pl., Grosse Pte. 30
Leader, Luther R.....1553 Woodward, Detroit 26
Leaver, L. Ross.....757 Lakewood Ave., Detroit 15
Lebamoff, Alexander T.....7940 Allen Rd., Allen Park
Lechner, Monroe S.....15074 Houston Ave., Detroit
Lecklider, A. F. (R).....848 Berkshire Rd., Grosse Pte. 30
Lee, Edith J.....2424 Puritan, Detroit 21
Lee, Frank.....14855 Melvin Dr., Livonia
Lee, Harry E.....13616 Gratiot Ave., Detroit 5
Lee, Pyong Tai.....25210 Grand River, Detroit 40
LeGallee, George M.....17532 Cornell, Detroit 35
Lehmann, Robert N.....26029 W. 5 Mile Rd., Detroit 39
Leipsitz, Louis S.....3566 Cass Ave., Detroit 1
Leiter, Forrest C.....2355 Monroe, Dearborn
Leithauser, Danl. J. (L).....18412 Mack, Detroit 36
Leland, Solomon.....6563 Grand River, Detroit 8
Lemley, Clark F.....3011 W. Grand Blvd., Detroit 2
Lemmer, John A.....6609 Van Dyke, Detroit 13
Lemmon, Chas. E. (L).....1337 D. Whitney Bldg., Detroit 26
Lemon, Bruce K.....8259 Meyers Rd., Detroit 28
Lentine, James J.....15831 Mack Ave., Detroit 24
Lenz, Willard R.....418 Moran Rd., Detroit 36
Lenzo, Joseph E.....951 E. Lafayette, Detroit 7
Lepard, Cecil W.....1553 Woodward Ave., Detroit 26
Lepley, Fred O. (L).....19799 Mack Ave., Grosse Pte. Wds.
Lepley, Frederick J.....19803 Mack, Grosse Pte. 36
Lerman, Saml. I.....4400 Livernois St., Detroit 10
Lerner, Leonard H.....7310 W. 7 Mile Rd., Detroit 21
Lesesne, John M.....17700 Mack Ave., Grosse Pte. 24
Leslie, C. G.....4839 Beaubien, Detroit 1
L'Esperance, Simon P. (R).....Rt. 3, Woodslee, Ont., Canada
Lessem, David.....12759 Vernon, Huntington Woods

Leszynski, Jos. S. (L).....10 Peterboro St., Detroit 1
Leucutia, Traian.....10 Peterboro, Detroit 1
Levagood, Floyd B.....14056 Artesian, Detroit 23
Levant, Arthur B.....15715 E. Warren, Detroit 24
Levenson, Malcolm L.....24500 Custis, Southfield
Leventer, Ira.....20211 Ann Arbor Trail, Detroit
Levin, David M. (A).....15121 W. McNichols Rd., Detroit 35
Levin, Herbert G.....17300 Schaefer, Detroit 35
Levin, M. Mitchel.....5057 Woodward Ave., Detroit 2
Levin, Saml. J.....3011 W. Grand Blvd., Detroit 2
Levine, Edward E.....12891 Sherwood, Huntington Woods
Levine, Sydney S.....8233 W. Chicago Blvd., Detroit 4
Levitt, Irving.....24535 N. Carolina, Southfield
Levitt, Nathan.....607 Kales Bldg., Detroit 26
Levy, David B.....29586 Fenkell, Livonia
Levy, Marvin B.....23200 Woodward Ave., Ferndale
Levy, Stanley H.....10601 7 Mile Rd., Detroit 21
Lewin, Harry (L).....10 Peterboro, Detroit 1
Lewis, Benjamin M.....1401 Rivard, Detroit 7
Lewis, Chas. T. (L).....5050 Joy Rd., Detroit 4
Lewis, Harvey Y.....14434 W. McNichols Rd., Detroit 35
Lewis, J. Hugh.....1543 Ford Ave., Wyandotte
Lewis, Lee A.....2730 E. Jefferson Ave., Detroit 7
Lewis, Robt. H.....14807 W. McNichols, Detroit 35
Lewis, Wilfrid J.....10 Peterboro St., Detroit 1
Libbrecht, Robt. V.....6540 Park Ave., Allen Park
Lichter, Max L.....2900 Oakwood Blvd., Melvindale
Liddicoat, Arthur G.....20125 Fenkell, Detroit 23
Lieberman, Barnard L.....19212 Woodward Ave., Detroit 3
Lightbody, James J.....1553 Woodward Ave., Detroit 26
Lignell, Rudolph W.....14200 Puritan, Detroit 27
Lilly, Robert P.....29594 W. 5 Mile Rd., Livonia
Lincoln, Abraham R. (A).....1337 Lakewood, Detroit 15
Lindner, David W.....801 D. Whitney Bldg., Detroit 26
Linkner, Leonard S.....12944 LaSalle Lane, Huntington Woods
Lipinski, Stanley L.....7540 Michigan Ave., Detroit 10
Lipkin, Ezra.....5715 Michigan Ave., Detroit 10
Lipnik, Carl E.....31610 Plymouth Rd., Livonia
Lipnik, Morris J.....15101 W. 7 Mile Rd., Detroit 35
Lipchutz, Louis S.....19750 Chesterfield Rd., Detroit 21
Lipson, Channing T.....16815 James Couzens, Detroit 35
Lipson, Madeleine L.....1800 Tuxedo, Detroit 6
Lipton, Raymond F.....10 Peterboro St., Detroit 1
Litsky, Abraham D.....1183 E. Grand Blvd., Detroit 11
Little, James W.....3637 Franklin Rd., Bloomfield Hills
Litwin, Jack A.....15121 W. McNichols Rd., Detroit 35
Litzenberger, D. J.....1386 E. Grand Blvd., Detroit 11
Livingood, Clarence S.....2950 Iroquois, Detroit 14
Lockhart, Edward C.....5005 Tireman, Detroit 4
Lockwood, Bruce C. (L).....19490 Parkside Ave., Detroit 21
Lofstrom, James E.....1420 St. Antoine St., Detroit 26
Logrippo, Annie B.....Henry Ford Hosp., Detroit 2
Lohmann, Carl W.....1229 D. Whitney Bldg., Detroit 26
London, Berton L.....18510 Meyers, Detroit 35
Long, Earl C.....19751 James Couzens Hwy., Detroit 35
Long, John J.....12421 Monica St., Detroit 4
Longo, Salvatore.....468 Cadieux, Detroit 30
Lookanoff, Victor A.....369 Glendale Ave., Highland Park 3
Loranger, C. B. P.....20825 Mack, Detroit 36
Loranger, Guy L.....34 Moross Rd., Detroit 36
Lorber, Jos. H.....16558 North Lawn, Detroit 21
Lorentzen, Edwin H.....11702 Grand River Ave., Detroit 4
Lovas, Wm. S.....6354 W. Fort St., Detroit 9
Love, Donald M.....703 Parker, Apt. 4, Detroit 14
Love, W. Thos.....231 E. Warren Ave., Detroit 1
Lowe, Adolf W.....3338 W. Davison Ave., Detroit 38
Lowe, Townsend G.....218 Kirby, Detroit 2
Lowinger, Paul L.....951 E. Fafayette, Detroit 7
Lowrie, Wm. L.....2799 W. Grand Blvd., Detroit 2
Luby, Elliot D.....19680 Roslyn Rd., Detroit 21
Lui, Alfred H. F. (A).....Wayne Co. Gen. Hosp., Eloise
Lukas, John R.....18551 W. Warren, Detroit 28
Lumpkin, John G., Jr.....243 E. Warren Ave., Detroit 1
Lutz, Earl F.....3044 W. Grand Blvd., Detroit 2
Lutz, Sherwin J.....15121 W. McNichols, Detroit 35
Luz, Denis A.....Detroit Memorial Hosp., Detroit 26
Luzadre, John H.....18430 Mack Ave., Detroit 36
Lynn, David H.....Lynn Hospital, Lincoln Park
Lynn, Harvey D.....22159 W. Outer Dr., Dearborn
Lytle, Robt. P.....10 Peterboro St., Detroit 1
Maben, Hayward C., Jr. (A).....Meharry Med. College, Nashville, Tenn.
Mabley, John D.....1037 D. Whitney, Detroit 26
MacCraken, F. L. (A).....16753 St. Marys, Detroit 35
MacDougall, Orrin P.....13700 Woodward Ave., Detroit 3
Macfarlane, Howard W.....1553 Woodward Ave., Detroit 26
MacGregor, Wm. W. (L).....6320 W. Surrey St., Birmingham
Mack, Harold C.....3011 W. Grand Blvd., Detroit 2
Mack, Robert E.....Womans Hospital, Detroit 1
MacKenzie, Earle D.....81 E. Kirby St., Detroit 2
MacKenzie, Frank M. (R).....1464 Lakeshore Rd., Sarnia, Ontario, Canada
MacKenzie, John W. (L).....289 Rivard Blvd., Grosse Pointe 30
Mackersie, Wm. G.....18205 Roselawn Ave., Detroit 21
Mackler, Harry S.....1800 Tuxedo, Detroit 6
MacLeod, Chas W.....16116 W. McNichols, Detroit 35
Macmillan, Francis B.....1553 Woodward Ave., Detroit 26
MacPherson, K. C.....8100 E. Jefferson, Detroit 14
MacQueen, Malcolm D.....660 Woodward Ave., Detroit 26
Maczewski, John E.....9535 Jos Campau Ave., Hamtramck 12
Mader, Ivan J.....Wayne State Univ., Detroit 7
Magnell, Ralph C.....8825 Puritan Ave., Detroit 38
Maguire, Clarence E.....1553 Woodward Ave., Detroit 26
Mahlin, Murray S.....16820 Greenfield Ave., Detroit 35
Mahoney, Hugh M.....1553 Woodward Ave., Detroit 26
Mahoney, William F. (A).....18242 Snow Rd., Dearborn
Maibauer, Fredk. P.....2966 Biddle Ave., Wyandotte
Mainwaring, Rosser L.....1910 Russell, Dearborn
Maire, Edward D.....15224 E. Jefferson, Detroit 30
Maitland, Ruth J.....Mich. Bell Telephone, Detroit 26
Majzoub, Ahmad J.....3334 Fort, Lincoln Park
Majauskas, V. E.....23738 Joy Rd., Detroit 39
Malina, Stephen.....1601 Kirkway Dr., Rt. 3, Bloomfield Hills
Malje, Frank J.....Garden City Clinic, Garden City
Malone, John M.....17300 Schaefer Rd., Detroit 35
Maloney, John A.....670 Maccabees Bldg., Detroit 2
Maltzer, Jos. H.....950 E. State Fair, Detroit 3
Mandel, Leslie.....14444 W. McNichols Rd., Detroit 35
Mandell, Gerald H.....Sinai Hospital, Detroit 35
Mandiberg, Jack N.....12700 W. 7 Mile Rd., Detroit 35
Mann, Andrew D.....20901 Moross, Detroit 36
Manning, Morey H.....950 E. State Fair Ave., Detroit 3
Manson, Gordon.....Henry Ford Hosp., Detroit 2
Mapletoft, Kenneth E.....420 Mohawk, Dearborn
Marcus, Edwin L.....1221 Lincoln, Lincoln Park
Marecki, Vincent J.....10326 W. Warren, Dearborn
Margules, Saul Z.....11846 E. McNichols, Detroit 5
Marinus, Carleton J.....1553 Woodward Ave., Detroit 26
Mark, Jerome.....513 D. Whitney Bldg., Detroit 26
Markey, Alexander P.....14853 Michigan Ave., Dearborn
Markey, Frank R.....17174 Fairfield, Detroit 21
Markoe, Rupert C. L.....4102 Brush St., Detroit 1
Marks, Ben.....232 W. Grand River Ave., Detroit 26
Marks, Bert W.....8250 Lincoln Dr., Huntington Woods
Marsh, Alton R.....15696 Woodland Dr., Dearborn
Marshall, James R.....14827 E. Jefferson Ave., Detroit 15
Marshall, J. R., Jr.....20160 Mack Ave., Detroit 36
Martin, J. B., Jr.....449 E. Elizabeth St., Detroit 1
Martin, Lyndle R.....2000 Second Blvd., Detroit 26
Martin, Marion T.....6620 W. Fort St., Detroit 9
Martin, Peter A.....857 Fisher Bldg., Detroit 2
Martin, Walter.....17523 Dequinder, Detroit 12
Martin, Wilbur C.....7440 W. Jefferson St., Detroit 17

Martineau, Perry C.....16709 Glastonbury, Detroit 19
Martinez, Pedro O.....1439 Bagley Ave., Detroit 16
Martmer, Edgar E.....693 Washington Rd., Grosse Pte. 30
Marwil, Thos. B.....17563 Greenfield Rd., Detroit 35
Mateer, John G. (L).....Henry Ford Hospital, Detroit 2
Matthews, Burton V.....13724 W. Fort St., Southgate
Mattman, Paul E.....1500 Seminole, Detroit 14
Mauch, Eugene W.....1221 Lincoln, Lincoln Park
Mauthe, Harry G.....9272 Idaho, Livonia
Maynard, Fredk. M.....6828 Park Ave., Allen Park
McAlonan, William T. (L)....10 Peterboro St., Detroit 1
McAlpine, Gordon S. (L).....3011 W. Grand Blvd., Detroit 2
McBryan, Thos. J.....Grace Hospital, Detroit
McCadie, James H.....13700 Woodward Ave., Highland Park 3
McCandless, Virginia.....2355 Monroe, Dearborn
McCaughey, R. S.....Wayne St. University, Detroit 7
McClellan, Robt. J.....16345 W. McNichols, Detroit 35
McClelland, Rachel L.....33026 5 Mile Rd., Livonia
McClendon, James J.....503 E. Warren Ave., Detroit 1
McClintock, John J.....16151 Schoolcraft Ave., Detroit 27
McClure, Robt. W.....9111 E. Outer Dr., Detroit 13
McClure, Wm. R. (L)....Box 1498, Boynton Beach, Fla.
McColl, Chas. W.....2025 Ford Ave., Wyandotte
McColl, Clarke M.....2799 W. Grand Blvd., Detroit 2
McCollum, E. Bert.....1553 Woodward Ave., Detroit 26
McCord, Carey P. (L)..Sch. of Public Health, Ann Arbor
McCormick, Colin C.....24352 Rockford Ave., Dearborn
McCue, Francis B.....6742 Park Ave., Allen Park
McCullough, L. E.....1711 D. Whitney Bldg., Detroit 26
McDonald, Angus L.....15125 Gratiot, Detroit 5
McDonald, John R.....Harper Hosp., Detroit 6
McDonald, Wm. G.....15600 Michigan Ave., Dearborn
McDowell, Douglas B.....Wayne Co. Gen. Hosp., Eloise
McEvitt, Wm. G.....1140 W. Boston Blvd., Detroit 2
McFadyen, Hugh A. (L)....10 Peterboro St., Detroit 1
McGee, T. Manford.....Henry Ford Hosp., Detroit 2
McGillicuddy, W. E. (R)....7542 Pinehurst, Dearborn
McGinnis, Kenneth D.....Henry Ford Hospital, Detroit 2
McGlaughlin, N. D.....2312 Biddle Ave., Wyandotte
McGough, Jos. M.....18716 Grand River, Detroit 23
McGuire, John F.....10 Cherry Hill Ct., Dearborn 7
McHenry, John T.....1401 Rivard St., Detroit 7
McIntosh, Robt. D.....6307 W. Fort St., Detroit 9
McIntyre, Jack B.....2841 Monroe Blvd., Dearborn
McIntyre, Wm. B.....1145 D. Whitney Bldg., Detroit 26
McKean, G. Thos.....1553 Woodward Ave., Detroit 26
McKeever, Geo. E.....5237 Oakman Blvd., Dearborn
McKenna, Chas. J.....14618 E. 7 Mile, Detroit 5
McLane, Harriet I. E. (L).....4350 Oregon Ave., Detroit 4
McLean, Brita R.....1365 Cass, Detroit 26
McLean, Don W.....1066 Fisher Bldg., Detroit 2
McLean, Donald C.....10 Peterboro, Detroit 1
McNamara, Joseph M.....356 N. Main St., Plymouth
McNeill, Roger F.....119 Kercheval, Grosse Pte.
McNichol, Larry J.....13345 W. McNichols, Detroit 19
McPhee, Roderick T.....987 E. Jefferson, Detroit 7
McPherson, Robt. J.....12626 Meyers Rd., Detroit 27
McQuiggan, Mark R.....700 Seward, Detroit 2
Medalie, Morris.....1800 Tuxedo, Detroit 6
Meek, Stuart F.....13020 Kilbourne, Detroit 13
Meghnot, Parviz.....1800 Tuxedo, Detroit 6
Melander, L. W., Jr.....1229 D. Whitney Bldg., Detroit 26
Mellen, Hyman S.....16800 Greenfield, Detroit 35
Mellinger, Raymond C.....959 Pemberton, Grosse Pte.
Melnyczuk, Nestor.....7304 Michigan, Detroit 10
Menagh, Frank R. (L)....4010 Columbus Ave., Detroit 4
Mendelson, Charles G.....Henry Ford Hospital, Detroit 2
Mendelson, Herbert (A)....15200 Northfield, Oak Park 37
Mendelssohn, Reuben J.....14427 Mack Ave., Detroit 15
Mendians, Edgar V.....
Mendoza, Saml.....6356 Michigan, Detroit
Menton, Norman J.....15300 W. McNichols, Detroit 35
Merkel, Chas. C.....85 Kercheval Ave., Grosse Pte. Farms
Merkle, Karl.....530 N. Telegraph, Dearborn
Merrill, C. R., Jr.....22883 Brookside Ct., Dearborn
Merritt, Earl G.....10 Peterboro St., Detroit 1
Mersky, Charlotte I. (A).....32215 Queensboro, Farmington
Metes, John S.....62 Webber Pl., Grosse Pte Shores
Metzger, Harry C.....25504 Wareham, Huntington Woods
Meyer, Eugene (A)....17041 Pinecrest Dr., Allen Park
Meyer, John S.....Wayne State Univ., Detroit 7
Meyer, Kenneth R.....Oakwood Hospital, Dearborn
Meyers, Marjorie P.....5320 John R St., Detroit 2
Meyers, Maurice P.....18984 Livernois, Detroit 21
Meyers, Sidney S.....20861 Mack Ave., Detroit 36
Meyers, Solomon G.....5057 Woodward Ave., Detroit 2
Michael, Michael J.....703 Mutual Bldg., Detroit 26
Mihay, Benjamin.....2021 Monroe, Dearborn
Mikesell, W. B., Jr.....Taylor
Millard, Glenn E.....2900 W. Grand Blvd., Detroit 2
Miller, Danl. H.....23100 Cherry Hill, Dearborn
Miller, Elmer B.....20 Oxford Rd., Pleasant Ridge
Miller, Jacob J.....20131 James Couzens, Detroit 35
Miller, J. Martin.....2799 W. Grand Blvd., Detroit 2
Miller, Karl L.....1553 Woodward Ave., Detroit 26
Miller, Leroy A. (A).....Woman's Hospital, Detroit
Miller, Myron H.....27330 Southfield Rd., Lathrup Village
Miller, Oscar W.....Fleetwood Plant, FBD, GMC, Detroit 9
Miller, Thos. H.....1305 D. Whitney Bldg., Detroit 26
Miller, Wm. E. (L).....10 Peterboro, Detroit 1
Miller, William J.....5649 Inkster Rd., Garden City
Mills, Clinton C.....16190 Jas Couzens Hwy., Detroit 21
Mills, Geo. R.....8209 Allen Road, Allen Park
Milton, S. Byron.....26560 W. Outer Dr., Lincoln Park
Mintz, Edward I.....954 Fisher Bldg., Detroit 2
Mintz, Morris J.....16895 Livernois St., Detroit 21
Minui, Morteza.....1144 Carlson, Wayne
Miral, Solomon P.....4825 E. McNichols Rd., Detroit 12
Mishelevich, Sophie.....4651 E. 9 Mile Rd., Van Dyke
Miskinis, Martyna.....393 W. Grand Blvd., Detroit 16
Missavage, Edward....Wayne Co. General Hosp., Eloise
Mitchell, A. W.....12000 Visger, Detroit
Mitchell, C. Leslie.....34 Hendrie Lane, Detroit 36
Mitchell, Darnell P.....7713 Oakland Ave., Detroit 11
Mitchell, Ralston S.....243 E. Warren, Detroit 1
Mitchell, Roy A.....Det. Memorial Hosp., Detroit 26
Moehlig, Robt. C. (L)....3001 W. Grand Blvd., Detroit 2
Moghissi, Kamran S.....763 D. Whitney Bldg., Detroit 26
Mogill, Geo.....3150 Second Blvd., Detroit 1
Moisides, Vasil P.....28 W. Adams Ave., Detroit 26
Moll, Clarence D.....10 Peterboro St., Detroit 1
Molner, Jos. G.....Wayne Co. Health Dept., Eloise
Momcilovich, Boxidar....2241 Huron River Dr., Rockwood
Mond, Edward.....10 Witherell St., Detroit 26
Monson, Robt. C.....17520 Chester, Detroit 24
Montante, Jos. R.....18715 Bretton Dr., Detroit 23
Montgomery, Wm. C.....25717 Coolidge, Oak Park 37
Monto, Raymond W.....Henry Ford Hosp., Detroit 2
Moore, John W., Jr.....8425 W. 8 Mile Rd., Detroit 21
Moore, Warren R.....608 Eastland Prof. Bldg., 17800 E. 8 Mile Rd., Detroit 36
Mopper, Coleman.....14633 E. 7 Mile Rd., Detroit 5
Moran, Frank J.....27459 Five Mile Rd., Livonia
Morand, Louis J. (A).....18944 Fairfield, Detroit 21
Morgan, Donald N.....1553 Woodward Ave., Detroit 26
Moriarity, Geo. J.....3011 W. Grand Blvd., Detroit 2
Morita, Yoshikazu.....1401 Rivard, Detroit 7
Morley, Arthur R.....15753 Promenade, Allen Park
Morley, Harold V.....970 Fisher Bldg., Detroit 2
Morley, James A.....10514 Plymouth Ave., Detroit 4
Moroun, Sheffick J. (A).....8045 E. Jefferson Ave., Detroit 14
Morris, Harold L. (L)....3001 W. Grand Blvd., Detroit 2
Morrison, George W.....2033 Park, Detroit 26
Morse, William H.....19203 Grand River, Detroit 23
Morton, David G.....19445 Plymouth, Detroit 28
Morton, John B. (L).....28303 Joy Rd., Garden City
Mosee, William J.....9219 Dexter, Detroit 6

Moseley, Fredk. L.....2561 S. Schaefer, Detroit
Mosen, Max M.....8015 Harper Ave., Detroit 13
Moser, Peter F.....26151 Huron River Dr., Flat Rock
Moses, John W.....754 Fisher Bldg., Detroit 2
Moss, Nathan H.....2847 Trumbull, Detroit 16
Moss, Selma S.....18254 Livernois Ave., Detroit 21
Moszcznski, B. J.....1113 D. Whitney Bldg., Detroit 26
Mott, Carlin P.....2395 W. Grand Blvd., Detroit 8
Mott, Fredk. D.....6533 E. Jefferson, Detroit 7
Moynihan, John W.....2841 Monroe Blvd., Dearborn
Mucasey, John.....21415 W. 8 Mile Rd., Detroit 19
Muirhead, Ernest E.....432 E. Hancock, Detroit 1
Mullen, Jos. R.....19003 Ecorse Rd., Allen Park
Munson, Henry T.....18350 Mack, Grosse Pte. 36
Murphy, Donald J.....621 Prof. Bldg., Detroit 1
Murphy, Scipio G.....603 E. Forest, Detroit 1
Murphy, Wm. M.....10500 E. Warren Ave., Detroit 14
Murray, Gordon M.....9901 Whittier, Detroit 24
Murray, Robt. J.....2299 West Rd., Trenton
Murray, Thomas H. (A)....25239 Southfield, Southfield
Muske, Paul H.....13244 W. Warren, Dearborn
Myers, Danl. W.....1150 Bedford Rd., Detroit 30

Nagle, John W.....114 Maple St., Wyandotte
Nahigian, Russell.....17371 Annchester Ave., Detroit 19
Nahoum, Antoine.....1030 Kensington, Detroit 30
Nalbandian, Robt. M.....1401 Rivard St., Detroit 7
Naud, Henry J.....18456 Grand River Ave., Detroit 23
Navori, Cornelius A.....3516 Fort St., Lincoln Park
Naylor, Arthur H. (A).....10033 Tireman, Dearborn
Neeb, Walter G.....16840 E. Warren St., Detroit 24
Nehra, John M.....320 E. Center Prof. Bldg., Detroit 36
Neill, Edwin J.....8045 E. Jefferson St., Detroit 14
Nelson, Darwin M.....63 Ridge Rd., Detroit 36
Nelson, Harry M.....3001 W. Grand Blvd., Detroit 2
Nelson, Norman A.....Wayne Co. Gen. Hosp., Eloise
Nelson, Victor E.....3025 Crooks Rd., Royal Oak
Nesbit, Warren S.....474 Fisher Bldg., Detroit 2
Neufeld, Paul N.....19467 Livernois, Detroit 21
Newby, Burns G.....1104 Maccabees Bldg., Detroit 2
Newman, Ernest.....17371 Evergreen St., Detroit 19
Newman, Geo. F.....2021 Monroe Blvd., Dearborn
Newman, Max K.....16861 Wyoming Ave., Detroit 21
Newton, Kenneth.....6435 Lincoln Ave., Detroit 2
Nichols, Wallace, Jr.....3631 S. Longmeadow, Trenton
Nickel, Warren O.....861 Monroe, Dearborn 8
Nickels, Albert W.....3011 W. Grand Blvd., Detroit 2
Nielsen, Aage E.....320 Prof. Bldg., Detroit 1
Nielsen, Donald R.....18629 Sorrento, Detroit 35
Nigro, Norman D.....7815 E. Jefferson, Detroit 14
Nill, John B.....15001 E. Warren, Detroit 24
Nill, Wm. F.....15001 E. Warren, Detroit 24
Noble, Wm. C.....4045 W. Jefferson, Ecorse 29
Noe, Jos. T., Jr.....Wyandotte Chem. Corp., Wyandotte
Nolan, Bernard E.....5460 Schaefer Rd., Dearborn
Nolting, Wilfred S. H.....15850 E. Warren Ave., Detroit 24
Northcross, David C.....2929 W. Boston Blvd., Detroit 6
Norton, Arthur B.....5057 Woodard Ave., Detroit 2
Norton, Chas. S. (L).....27992 6 Mile Rd., Livonia
Noshay, Wm. C.....2799 W. Grand Blvd., Detroit 2
Novack, Richard L.....9924 Farmington Rd., Livonia
Novy, Robt. L.....858 Fisher Bldg., Detroit 2
Nunn, James W.....106 W. Davison, Detroit 3
Nyboer, Jan.....Harper Hospital, Detroit 1

O'Brien, Geo. M.....2501 W. Grand Blvd., Detroit 8
Obushkevich, Leon S.....15720 W. Warren, Detroit 28
O'Connor, Katheryn L.....17711 Schoolcraft, Detroit 27
O'Donnell, Dayton H.....2501 W. Grand Blvd., Detroit 8
O'Donnell, Wm. S.....Wayne Co. Gen. Hosp., Eloise
Oetting, Edward M.....2923 Iroquois Ave., Detroit 14
O'Hare, Wm. J.....24616 Winona, Dearborn 7
Ohmart, Galen B.....8721 E. Jefferson Ave., Detroit 14
Ohrt, Harold F. (A).....285 E. Grand Blvd., Detroit 7
Okun, Milton H.....3261 Sherbourne Rd., Detroit 21
Olejniczak, Stanley.....Wayne Co. Gen. Hosp., Eloise
Olen, Alex.....13100 Harper Ave., Detroit 13
O'Linn, Francis P.....1055 Fisher Bldg., Detroit 2
Olmsted, Geo. S.....27305 Southfield Rd., Lathrup Village
Olson, Avis M.....Mt. Carmel Mercy Hosp., Detroit 35
Olson, James A.....28 W. Adams Ave., Detroit 26
Oman, Cyrus F. (R)....12608 Wyoming Ave., Detroit 38
Oppenheim, Jos. M.....24091 Dante, Oak Park 37
Organ, Fred W. (L).....1 Calvert, Detroit 2
Ormond, Robt. S.....1951 Monroe St., Dearborn
O'Rourke, Paul V.....17725 Manderson Rd., Detroit 3
O'Rourke, Randall M.....7384 12th St., Detroit 6
Osius, Eugene A.....1553 Woodward Ave., Detroit 26
Ostrove, Robert.....1800 Tuxedo, Detroit 6
Ostrowski, Arthur Z.....949 D. Whitney Bldg., Detroit 26
O'Sullivan, Girardin S.....26520 Willowgreen Way, Franklin
Otlewski, Eugene A.....19647 Joy Rd., Detroit 28
Ottaway, John P.....18226 Mack Ave., Grosse Pte. Farms
Otto, Donald.....Det. Memorial Hospital, Detroit 26
Owen, Clarence I.....1544 Vinewood Ave., Detroit 16

Palmer, Alice E.....3919 John R St., Detroit 1
Palmer, Milton R.....8700 Dexter Blvd., Detroit 6
Palmisano, I. J.....25447 Plymouth Rd., Detroit 39
Pangburn, Leon E. (L).....12897 Woodward, Detroit 3
Panic, Stephen M.....1001 W. 7 Mile, Detroit 3
Parcells, Frank H.....1014 Buckingham, Grosse Pte. 30
Parfanowycz, Sophie N.....D. Lapeer St. Hosp., Lapeer
Parker, Albert R.....3720 Washington St., Wayne
Parker, Benj. R.....19149 W. 7 Mile Rd., Detroit 19
Parnell, John W.....21 Whitcomb Dr., Grosse Pte. Farms
Parr, Robt. W. (A)....1126 Audubon Rd., Grosse Pte. 30
Parrish, Rufus H. (A).....2610 Starlevant, Detroit
Pasternacki, N. T.....6203 Chene St., Detroit 11
Pastorius, Melvin K. (A).....25737 Fortuna, Roseville
Paul, Lloyd J.....25321 Fenkell, Detroit 39
Pawlowski, Jerome I.....2009 E. Grand Blvd., Detroit 11
Payne, Eugene H. (R).....656 Van Dyke St., Detroit 14
Payne, Walter A., Jr.....357 Hillcrest, Grosse Pte. 36
Paysner, Harry A.....13700 Woodward Ave., Highland Park 3
Peabody, Chas. W. (R).....25 Riverside Dr., Barrington, R. I.
Pearce, Arthur J.....15317 Piedmont St., Detroit 23
Pearlman, Jack.....25860 Concord, Huntington Woods
Pearse, Harry A.....3001 W. Grand Blvd., Detroit 2
Peat, Alexander C.....1350 Devonshire Rd., Grosse Pte. Park
Pedersen, Herbert E.....381 Golfcrest Dr., Dearborn
Peggs, Geo. F.....5419 Livernois Ave., Detroit 10
Pendy, Geo. V.....1001 D. Whitney Bldg., Detroit 26
Pendy, John M.....1001 D. Whitney Bldg., Detroit 26
Pensler, Leslie.....8844 Joy Rd., Detroit 4
Pensler, Meyer.....10149 Michigan Ave., Dearborn 2
Percy, Donald F.....15901 Greenfield Ave., Detroit 27
Perdue, Grace M.....3011 W. Grand Blvd., Detroit 2
Perkin, Frank S.....3011 W. Grand Blvd., Detroit 2
Perlis, Hyman L.....5057 Woodward Ave., Detroit 2
Perlis, Marvin S.....952 Maccabees Bldg., Detroit 2
Perry, Joseph H.....408 Mckinley St., Grosse Pte Farms
Peterman, Earl A.....13700 Woodward, Highland Park 3
Peters, Wm. R.....12400 E. 7 Mile Rd., Detroit 5
Peterson, Gustav.....2860 Clark Ave., Detroit 32
Peterson, Robert A. (A).....17581 Prest, Detroit 35
Petix, Saml. C.....19207 Schaefer, Detroit 35
Petoskey, Edward A.....5656 W. Fort, Detroit 9
Petrick, Thos. J.....1221 Lincoln Rd., Lincoln Park
Petrini, Mario A.....1080 Fisher Bldg., Detroit 2
Petty, Thos. A.....1204 Yorkshire Rd., Detroit 30
Petz, Arthur John.....15420 Farmington, Livonia
Petz, Thomas J.....1139 David Whitney Bldg., Detroit 26
Peven, Philip S.....18709 Meyers Rd., Detroit 35
Pevin, Pauline.....18709 Meyers Rd., Detroit 35
Pfeiffer, Rudolph L. (L)....469 E. Grand Blvd., Detroit 7
Picard, Jos. D.....5237 Oakman Blvd., Dearborn
Piccone, Louisa I.....17700 W. Warren, Detroit 28
Pichette, J. Walton.....6650 Greenfield Rd., Dearborn
Pickard, Orlando W. (L).....14300 W. McNichols, Detroit 35
Pierce, James M., Jr.....Wayne St. University, Detroit 7

Pietra, A. W.....10338 Joseph Campau, Detroit 12
Pinckard, Karl G.....22276 Ganison, Dearborn
Pingel, James F.....998 Norfolk, Birmingham
Pinney, Lyman J. (L).....28 W. Adams, Detroit 26
Pino, Ralph H.....48151 W. Ann Arbor Rd., Plymouth
Piper, Ralph R.....1495 McKinstry, Detroit 9
Pittman, John E. (L)....1553 Woodward Ave., Detroit 26
Pitts, Kenneth E.....17850 Maumee, Grosse Pte.
Platz, Carol K.....612 Est. Cen. Prof. Bldg., Detroit 36
Pliskow, Harold.....10730 W. 7 Mile Rd., Detroit 21
Plotnick, Harold.....17554 Indiana, Detroit 21
Plous, Eugene K.....569 Fisher Bldg., Detroit 2
Podolsky, Harold M.....3755 Fort, Lincoln Park
Polentz, Chas. P.....Medical Concourse Northland Center, Southfield
Pollack, Jerome L.....14551 Southfield, Allen Park
Pollack, John J.....18200 Wyoming, Detroit 21
Pollard, R. J.....Grace Hospital, Detroit 1
Pollens, Louis S.....12730 W. McNichols Rd., Detroit 35
Pollina, Clement J.....21503 Harper, St. Clair Shores
Ponka, Jos. L.....2799 W. Grand Blvd., Detroit 2
Pool, Walter D.....20901 Moross Rd., Detroit 36
Poos, Edgar E.....3001 W. Grand Blvd., Detroit 2
Pope, Gerald.....Henry Ford Hospital, Detroit 2
Porretta, Chas. A.....622 Maccabees Bldg., Detroit 2
Porretta, Francis S.....8156 Normile Ave., Detroit 4
Porretta, George F.....1076 Maccabees Bldg., Detroit 2
Porter, Fredk. G.....29590 5 Mile, Livonia
Porter, Howard J.....36911 Goddard Rd., Romulus
Portnoy, Harry.....4253 Leslie, Detroit 38
Posch, Jos L.....1410 Kales Bldg., Detroit 26
Posner, Irving.....18111 Muirland Ave., Detroit 21
Potts, Elihue B.....8943 Twelfth St., Detroit 6
Poznanski, Andrew K.....Henry Ford Hospital, Detroit 2
Pratt, Jean P. (L).....18910 Fairway Dr., Detroit 21
Pratt, Lawrence A.....15621 Windmill Pte. Dr., Grosse Pointe Park
Preston, C. W.....4602 Brush St., Detroit 1
Preston, Ruth E.....3011 W. Grand Blvd., Detroit 2
Pribor, Hugo C.....Bon Secours Hosp., Detroit 30
Price, A. Hazen.....408 D. Whitney Bldg., Detroit 26
Price, Alvin E.....1553 Woodward Ave., Detroit 26
Priest, Robt. J.....Henry Ford Hospital, Detroit 2
Primack, Marvin H.....1116 Maccabees Bldg., Detroit 2
Prince, Addison E.....8942 Dexter, Detroit 6
Prisbe, Edward J.....16603 Plymouth Rd., Detroit 27
Priver, Julien.....6741 W. Outer Dr., Detroit 35
Procailo, Alexander B.....29901 Ford Rd., Garden City
Proctor, Bruce.....1553 Woodward, Detroit 26
Proctor, Lorne D.....Henry Ford Hospital, Detroit 2
Prokop, Frank P.....7517 Appoline, Dearborn
Prokopovich, V.....19666 Conant, Detroit 34
Proskey, Aloysius J. (A)....16167 Slastonbury, Detroit 19
Proud, Robert H.....26151 Huron River Dr., Flat Rock
Proud, Russel F.....26151 Huron River Dr., Flat Rock
Prus, A. Michael.....4160 John R St., Detroit
Prust, Frank W.....1536 David Whitney Bldg., Detroit 26
Pugh, Howard C.....1553 Woodward Ave., Detroit 26
Pugliesi, Angelo.....9489 E. Outer Dr., Detroit 13
Pugliesi, Benedetto.....9489 E. Outer Dr., Detroit 13
Purcell, Frank H.....10 Witherell St., Detroit 26
Puro, Henry E.....1733 Trenton Dr., Trenton
Purves, W. L.....500 Griswold St., Detroit 26

Quigley, Eugene H.....545 N. Waverly, Dearborn
Quigley, Wm. G.....1075 Fisher Bldg., Detroit 2
Quinn, Edward L.....1141 Golfview, Birmingham
Quinones, Rafael E.....17200 E. Warren, Detroit 24

Rabinovitch, Bella M.....20133 Marlowe, Detroit 35
Raby, Naim M.....215 St. Joseph, Trenton
Rachmaninoff, N.....Harper Hospital, Detroit 1
Radgens, Paul D.....Ford Motor Co., Dearborn
Rahm, Lambert P.....14411 E. Jefferson Ave., Detroit 15
Raiford, Frank P. (L)....1852 W. Grand Blvd., Detroit 8
Ralyea, Imbi.....16645 Freeland, Detroit 35
Ramsey, Robt. H.....310 River Lane, Dearborn
Randall, David S.....3955 Fort St., Lincoln Park
Rapp, Seymour L.....5055 W. Outer Dr., Detroit 35
Raskin, Herbert A.....18510 Meyers Road, Detroit 35
Raskin, Morris.....987 E. Jefferson, Detroit 7
Rastello, Peter B. (R).....30001 Van Dyke, Warren
Rattner, Wm. H.....1355 D. Whitney Bldg., Detroit
Rau, Fredk. W.....215 Professional Bldg., Detroit 1
Raven, Clara.....400 E. Lafayette, Detroit 26
Ravitz, Louis A.....12831 Burton Ave., Oak Park 37
Ray, Kenneth J.....28059 Elba Dr., Grosse Isle
Raynor, Harold F. (L).....49 Virginia Pk., Detroit 2
Read, Raymond.....Wayne State Univ., Detroit 7
Rebuck, John W.....2799 W. Grand Blvd., Detroit 2
Redding, Lowell G.....1336 Southfield Rd., Lincoln Park
Reder, Benjamin.....17301 W. 8 Mile Rd., Detroit 35
Redfern, W. Earl.....17392 Kirkshire St., Birmingham
Reed, H. Walter (L)....14447 W. 7 Mile Rd., Detroit 35
Reed, Ivor E.....1553 Woodward Ave., Detroit 26
Reed, Joseph O., Jr.....448 Lincoln, Detroit 30
Rees, Howard C.....15700 Mack Ave., Detroit 24
Reid, John G.....1553 Woodward Ave., Detroit 26
Reid, Wesley G.....3001 W. Grand Blvd., Detroit 2
Reiff, Morris V.....10241 Joy Rd., Detroit 4
Reinsh, Ernest R.....18674 Muirland Ave., Detroit 21
Reisig, Robert O.....20867 Mack, Detroit 36
Reisman, Nathan J.....15344 W. McNichols Rd., Detroit 35
Reisman, Saml. G.....1078 Maccabees Bldg., Detroit 2
Reive, David L. E.....25447 Plymouth, Detroit 39
Remski, James E.....29447 Ravine Dr., Livonia
Rennell, Leo P.....2567 W. Grand Blvd., Detroit 8
Reno, George L.....970 Fisher Bldg., Detroit 2
Rentenbach, Robt. F.....314 D. Whitney Bldg., Detroit
Reske, Alven A. (A).....2631 Village Rd., Dearborn
Retan, J. Walden.....1401 Rivard St., Detroit 7
Reutter, Carolyn.....22431 Trojan, Detroit
Reveno, Wm. S.....3001 W. Grand Blvd., Detroit 2
Reyner, Clarence E. (L)....10 Peterboro St., Detroit 1
Reynolds, Robt. M.....856 Fisher Bldg., Detroit 2
Reynolds, Roland P.....17521 Hamilton Rd., Detroit 3
Rezanka, Harold J.....1553 Woodward Ave., Detroit 26
Rhoades, Francis P.....5057 Woodward Ave., Detroit 2
Rice, Harold B.....10 Peterboro St., Detroit 1
Rice, Meshel.....533 Coats Rd., Oxford
Richardson, Allan L. (R).....Naubinway
Rick, Paul J.....12673 Joan, Detroit 5
Riddell, Wilfred A.....404 D. Whitney Bldg., Detroit 26
Ridge, Ralph W. (L).....100 Oak St., Wyandotte
Rieckhoff, Geo. G. (L).....14905 E. Jefferson Ave., Detroit 15
Rieden, James A.....18053 Muirland, Detroit 21
Rieger, John B. (L).....746 Pallister, Detroit 2
Rieger, Mary H. (L).....19285 Lucerne Dr., Highland Park
Riethmiller, Robt. F.....12444 E. 7 Mile Rd., Detroit
Rinaldo, Joseph, Jr.....Henry Ford Hospital, Detroit 2
Rinkel, Robert W.....7319 Park Ave., Allen Park
Ritter, George.....28420 Sunset Blvd., Lathrup Village
Rizzo, Paul.....16829 Harper, Detroit 24
Robb, Edward L.....17380 Livernois Ave., Detroit 21
Robb, Herbert F. (L).....381 Main St., Belleville
Robb, Herbert J.....19324 Herrick Ave., Allen Park
Robb, J. Milton (L)....633 D. Whitney Bldg., Detroit 26
Roberge, Jerome T.....814 Center Ave., Bay City
Roberts, Arthur J.....1310 Warwick Road, Lincoln Park
Roberts, George A.....7220 Gratiot Ave., Detroit 13
Robertson, Frederick E.....14001 Greenfield, Detroit 27
Robins, Samuel C.....24241 Seneca, Detroit 37
Robinson, Harold A.....10040 Yellowstone, Detroit 4
Robinson, Howard.....953 Fisher Bldg., Detroit 2
Robinson, James H., Jr.....1553 W. Grand Blvd., Detroit 8
Robinson, Remus G.....3751 31st St., Detroit 10
Rodin, Ernst A.....28 W. Adams, Detroit 26
Roeglin, Orville F. F.....16800 E. Warren, Detroit 24
Roehl, Karl H.....1800 Grindley Park, Dearborn
Rogers, Aaron Z.....20451 Mack Ave., Detroit 36
Rogers, Geo. E. B.....2108 D. Broderick Tower, Detroit 26
Rogers, John T.....29586 5 Mile Rd., Livonia
Rogin, James R.....19481 Livernois, Detroit 21

Rogoff, Abraham S.....5057 Woodward Ave., Detroit 2
Rohde, Paul C. (L).....12282 E. Outer Dr., Detroit 24
Rom, Jack.....8600 W. McNichols Rd., Detroit 21
Roman, Stanley J.....15020 Michigan Ave., Dearborn
Ronayne, John J., Jr.....16116 W. McNichols Rd., Detroit 35
Rosbolt, Oscar P. .....8505 Plymouth Road, Detroit 4
Rosefield, John L.....65 W. Hancock, Detroit 1
Rosen, Theodore S.....19340 Monte Vista, Detroit 21
Rosenbaum, Herbert.....18110 Muirland, Detroit 21
Rosenbaum, Jean B.....19200 Canterbury, Detroit 21
Rosenbloom, Alvin B.....17555 Parkside, Detroit 21
Rosenfeld, L. S.....1800 Tuxedo, Detroit 6
Rosenthal, Albert.....27855 Plymouth Rd., Livonia
Rosenthal, Louis H.....15401 W. McNichols, Detroit 35
Rosenthal, Saml.....8844 Joy Rd., Detroit
Rosenwach, Felix F.....19149 W. 7 Mile Rd., Detroit 19
Rosenzweig, Norman.....6767 W. Outer Dr., Detroit 35
Rosenzweig, Saul.....2542 W. Boston, Detroit 6
Ross, Charles V.....7740 Da Costa, Detroit 39
Ross, Hyman.....17301 W. 8 Mile Rd., Detroit 35
Rotarius, Edward M.....Parke Davis Co., Detroit 32
Roth, Edward T.....640 E. Grand Blvd., Detroit 7
Rothbart, Harold B.....25717 Coolidge, Oak Park
Rothwell, Walter S.....2730 Chelsea, Trenton
Rottenberg, Coleman M. J.....13419 Fenkell, Detroit 27
Rottenberg, E. N.....20725 W. 7 Mile Rd., Detroit 19
Rottenberg, Leon.....13419 Fenkell Ave., Detroit 27
Roubeck, William.....1052 Maccabees Bldg., Detroit 2
Rowda, Michael S.....7 Cambridge, Pleasant Ridge
Rowe, Jos. J., Jr.....401 N. Brady, Dearborn
Royer, Richard R.....18101 E. Warren Ave., Detroit 24
Rubinoff, William.....21415 W. 8 Mile Rd., Detroit 19
Ruble, Paul E.....1139 D. Whitney Bldg., Detroit 26
Rucker, Julian J.....668 Farnsworth Ave., Detroit 2
Ruedemann, Albert D.....1553 Woodward Ave., Detroit 26
Ruedemann, Albert D., Jr.....1553 Woodward Ave., Detroit 26
Rueger, Milton J.....86 Hall Pl., Detroit 36
Rueger, Ralph C.....9149 E. Jefferson Ave., Detroit 14
Runge, Edward F.....25549 Rouge River Dr., Dearborn
Rupe, Clarence E.....2799 W. Grand Blvd., Detroit 2
Rupp, Jacob R. (L).....2510 17th St., Detroit 16
Rupprecht, Emil F.....5525 W. Chicago Blvd., Detroit 4
Rush, Desmond K.....1429 D. Whitney Bldg., Detroit 26
Ruskin, Saml. H.....1112 Kales Bldg., Detroit 26
Russanow, Geo.....400 E. Lafayette, Detroit 26
Russell, Henry N., Jr.....1221 Lincoln, Lincoln Park
Rutzen, Arthur C.....20211 Greenfield Rd., Detroit 35
Ryan, James M.....16888 Greenfield, Detroit 35
Ryan, William D. (R).....P.O. Box 4335, Porter Sta., Detroit 9
Rydzewski, Jos. B.....12170 Jos. Campau Ave., Detroit 12

Sack, Anthony G.....2567 W. Grand Blvd., Detroit 8
Sadler, Henry H., Jr.....594 Rivard Blvd., Grosse Pte. 30
Sadzikowski, Jos. T.....1320 N. Denwood, Dearborn
Sage, Bernard A.....1013 Haigh St., Dearborn
Sage, Edward O. (L).....415 Burns Dr., Detroit 14
Sager, Edward L.....13902 Gratiot Ave., Detroit 5
St. Louis, Rene J. (L).....10909 W. Jefferson Ave., River Rouge 18
Sakorraphos, S. N. (L).....1346 Broadway, Detroit 26
Sakwa, Saul.....19467 Livernois, Detroit 21
Salan, Lacy J.....995 S. Main St., Plymouth
Salchow, Paul T.....Herman Kiefer Hosp., Detroit 2
Salem, Edward S.....14520 Sherwood, Oak Park
Salhaney, Mitchell.....15252 Levan Rd., Livonia
Sall, Caroline D.....6246 Chase, Dearborn
Sallee, William T.....33512 W. 5 Mile Rd., Livonia
Saltzstein, Harry C. (L).....850 Whitmore Rd., Detroit 3
Salvaggio, A. T.....1807 D. Whitney Bldg., Detroit 26
Sand, Harry H.....24110 Oxford, Dearborn
Sandberg, Hershel.....19207 Schaefer, Detroit 35
Sander, Irvin W. (R).....2855 Warner Dr., R. 1, Orchard Lake
Sanders, Alexander W.....5057 Woodward Ave., Detroit 2
Sanderson, Alvord R. (L).....978 Pemberton Rd., Grosse Pointe 30
Sanderson, Susanne M. (L).....18520 W. 7 Mile Rd., Detroit 19
Sandler, Nathaniel.....76 W. Adams Ave., Detroit 26
Santen, William L.....2900 S. Fort St., Detroit 17
Sapala, M. Andrew.....13021 Mackenzie Ave., Detroit 28
Saraf, Leo B.....14540 E. Warren, Detroit 15
Sargent, Douglas A...816 Grand Marais, Grosse Pte. Park
Sargent, Richard C.....17357 Fenkell St., Detroit 27
Sargent, William R.....17357 Fenkell St., Detroit 27
Sarnacki, Carl J.....952 Fisher Bldg., Detroit 2
Sarracino, John B. (A)....U.S. Army Hosp., Ft. Ord, Cal.
Sauk, John J.....302 W. McNichols Rd., Detroit 3
Saulsberry, Guy O.....301 E. Kirby, Detroit 2
Sauter, Simon H. (L).....1082 E. Grand Blvd., Detroit 7
Savignac, Eugene M.....Holy Cross Hosp., Detroit 34
Sawdyk, Daria H.....7012 Michigan Ave., Detroit 10
Scarney, Herman D.....3011 W. Grand Blvd., Detroit 2
Schaefer, H. C.....7815 E. Jefferson, Detroit 14
Schaefer, Robt. L. (A).....76 W. Adams Ave., Detroit 26
Schaefer, Robert. L., Jr.....74 W. Adams Ave., Detroit 26
Schaefer, Wm. C.....Henry Ford Hosp., Detroit 2
Schaeffer, J. N.....261 Brady, Detroit 1
Schaeffer, Martin.....18275 Warrington Dr., Detroit 21
Schakne, Norman.....669 Fisher Bldg., Detroit 2
Schane, David A.....17157 Mendota, Detroit 21
Scheinberg, S. R.....2240 W. Grand Blvd., Detroit 8
Schembeck, Isaac S.....1553 Woodward Ave., Detroit 26
Schiller, Arthur E. (L)..1553 Woodward Ave., Detroit 26
Schillinger, H. K.....4834 Neckel Ave., Dearborn
Schirack, Raymond D. (R).....
Schkloven, Norman.....20051 Warrington, Detroit 21
Schlafer, Nathan H.....10 Witherell St., Detroit 26
Schlesinger, Henry.....13534 Woodward Ave., Detroit 3
Schmaltz, John D.....1701 D. Whitney Bldg., Detroit 26
Schmidt, Generva F.....1074 Vernier Rd., Detroit 36
Schmidt, George J.....7106 Park Ave., Allen Park
Schmidt, Harry E.....24625 Fairmount Rd., Dearborn
Schmidt, Johann.....7815 E. Jefferson, Detroit 14
Schmidt, Milton R.....2615 W. Jefferson, Trenton
Schmidt, Werner F.....1807 Stroh Bldg., Detroit 26
Schmier, Burton L. (A).....20051 Litchfield, Detroit 21
Schmitt, Norman L.....10127 W. McNichols Rd., Detroit 21
Schneck, Robt. J.....1553 Woodward Ave., Detroit 26
Schneider, Chas. L.....22148 Michigan Ave., Dearborn
Schneider, Curt P.....655 Fisher Bldg., Detroit 2
Schoenfield, Gilbert D.....8830 W. McNichols Rd., Detroit 21
Scholdager, Rolf H.....1800 Tuxedo, Detroit 6
Schooten, Sarah S.....13700 Woodward Ave., Highland Park 3
Schorer, Calvin E.....951 E. Lafayette, Detroit 7
Schroeder, Carlisle F.....26505 E. River Rd., Grosse Ile
Schroeder, Gisela.....10641 Meuse, Detroit 24
Schulte, Carl H.....28 W. Adams Ave., Detroit 26
Schultz, Clarence H.....23100 Cherry Hill, Dearborn
Schultz, Ernest C. (L)..1553 Woodward Ave., Detroit 26
Schwartz, Benj.....275 W. Grand Blvd., Detroit 16
Schwartz, Harold A.....7605 Puritan Ave., Detroit 38
Schwartz, Louis A.....P.O. Box 315, Rockport, Mass.
Schwartz, Oscar D.....7421 W. 7 Mile Rd., Detroit 21
Schwartzberg, J. A.....19445 Plymouth, Detroit 28
Schwarz, Frank W.....23100 Cherryhill, Dearborn
Schweigert, C. F.....10627 Cadieux Rd., Detroit 24
Schwimmer, Benjamin.....8811 John C. Lodge Bldg., Detroit 2
Schwocho, Niles H.....7106 Park Ave., Allen Park
Sciarrino, Stanley V.....15388 Livernois Ave., Detroit 38
Scott, Marrion U.....20170 Mack Ave., Detroit 36
Scott, Robert J.....7333 W. 7 Mile Rd., Detroit 21
Scott, Wm. J.....20170 Mack Ave., Grosse Pte. Woods
Screen, Raymond J.....18520 W. 7 Mile Rd., Detroit 19
Seabrooks, Benj. F., Jr.....9136 Oakland Ave., Detroit 11
Secord, Eugene W. (A).....18980 Wyoming, Detroit 21

Segal, Andrew E.....19481 Livernois Ave., Detroit 21
Segar, Laurence F.....10 Witherell St., Detroit 26
Segel, Nathan P.....19100 Manor, Detroit 21
Seibert, Alvin H. (L).....1180 Bedford Rd., Grosse Pointe Park 30
Seiferlein, A. L.....1553 Woodward Ave., Detroit 26
Seim, Elmer J.....Grace Hospital, Detroit 1
Seitam, Karl.....10149 Michigan Ave., Dearborn
Selbst, Ronald A.....1342 Maccabees Bldg., Detroit 2
Self, Wm. G.....20861 Mack Ave., Grosse Pointe 36
Sellers, Chas. W.....18545 Schoolcraft Ave., Detroit 23
Sellers, Graham A.....10535 W. 7 Mile Rd., Detroit 21
Seltzer, Joseph.....7441 W. 7 Mile Rd., Detroit 21
Selzer, Isadore.....4811 John R St., Detroit 1
Senecoff, Stephen D.....16800 Greenfield, Detroit 35
Sepetys, Povilas.....25466 Clairview, Dearborn 6
Seski, Arthur G.....1069 Fisher Bldg., Detroit 2
Severyn, Fred R.....22146 Ford Rd., Dearborn
Sewell, Geo. (L).....31801 Arlington Dr., Birmingham
Sewell, Guy W.....17751 E. Warren Ave., Detroit 24
Seydel, H. Gunter.....Detroit Memorial Hosp., Detroit 26
Shada, John C.....770 Shoreham, Grosse Pointe 36
Shafarman, Eugene M.....5320 John R St., Detroit 2
Shaffer, Jos. H.....2401 Radnor Dr., Birmingham
Shaffer, Loren W. (R)..6040 Wildrose Lane, Port Huron
Shafter, Royce R.....3011 W. Grand Blvd., Detroit 2
Shanoski, Stanley J.....5057 Woodward Ave., Detroit 2
Shapiro, Jacob.....14634 E. 7 Mile Rd., Detroit 5
Shapiro, Reuben I.....636 Maccabees Bldg., Detroit 2
Shargel, Geo. M. J.....1800 Tuxedo, Detroit 6
Sharp, Elwood A. (A)....633 Neff Rd., Grosse Pointe 30
Sharpe, Wm. D.....24621 W. McNichols Rd., Detroit 19
Sharrer, Chas. H.....1133 Grayton, Detroit 30
Sheehan, Irene C.....15520 Garfield, Allen Park
Sheehan, Shelia.....Detroit Receiving Hosp., Detroit 26
Shekerjian, Armen.....20194 Wakefield, Detroit 21
Shelden, Warren E...14215 W. McNichols Rd., Detroit 35
Sheldon, John A. (L).....1435 Three Mile Dr., Grosse Pointe Park 30
Shelton, Carl F.....952 D. Whitney Bldg., Detroit 26
Sheppard, Emma L. W. (R).....314 Main St., Fenton
Sherbin, Herbert D.....7411 Third Ave., Detroit
Sherman, Marvin.....10310 Dartmouth, Oak Park 37
Sherman, W. LaRue.....10 Peterboro St., Detroit 2
Sherman, Wm. L., Jr. (A).....201 E. Kirby, Detroit 1
Sherrin, Edgar R.....19021 W. McNichols, Detroit 19
Shevin, Frederick F.....18450 Livernois, Detroit 21
Shewchuk, A. P.....7300 Allen Rd., Allen Park
Shields, Wm. L.....510 Hildale, Detroit 3
Shiffman, Milton M.....Mt. Sinai Hosp., Detroit 35
Shifrin, Peter G.....20211 Greenfield, Detroit 35
Shin, Eon.....1800 Tuxedo Ave., Detroit 6
Shiovitz, Louis.....5419 Michigan Ave., Detroit 10
Shipton, Waldo H. (A).....General Delivery, Naples, Fla.
Shlain, Benj.....10244 W. 7 Mile Rd., Detroit 21
Shors, Clayton M.....19635 Mack Ave., Detroit 35
Shortz, Gerald (A).....920 15th Place, Vero Beach, Fla.
Shreve, Alfred J.....4520 Firestone Ave., Dearborn
Shufro, Arthur S.....22100 Ridgedale, Oak Park 37
Shulak, Irving B.....10 Witherell St., Detroit 26
Shulman, Herschel A.....5057 Woodward Ave., Detroit 2
Shumaker, Edward J.....17606 Wildemere, Detroit 21
Siddall, Roger S.....3011 W. Grand Blvd., Detroit 2
Sieber, Edward H.....6650 Greenfield Rd., Dearborn
Siebert, William E.....809 Kales Bldg., Detroit 26
Siefert, John L.....12720 E. Outer Dr., Detroit 24
Siefert, Wm. A.....17400 Grand River Ave., Detroit 27
Siegel, Henry.....19720 Chesterfield, Detroit 21
Siero, Jose M.....9105 Van Dyke, Detroit 13
Sievers, Lorraine A.....1457 D. Whitney Bldg., Detroit 26
Sigler, John W.....Henry Ford Hospital, Detroit
Sill, Jacob A.....19635 Mack Ave., Detroit 36
Siller, John J.....16401 Grand River, Detroit 27
Sillery, Robt. J.....857 Grosse Pte. Ct., Grosse Pointe 30
Sills, Richard D.....14444 W. McNichols Rd., Detroit 35
Silvarman, Israel Z.....9105 Van Dyke Ave., Detroit 13
Silver, Israel W.....20000 W. Chicago, Detroit 28
Silver, Robert R.....20188 Wakefield, Detroit
Silverman, Maurice M...17301 W. 8 Mile Rd., Detroit 35
Silverman, Max.....2240 W. Grand Blvd., Detroit 8
Simmons, Donald R.....958 Fisher Bldg., Detroit 2
Simon, Heinz G.....12206 Morang, Detroit 24
Simpson, Gordon E.....18101 E. Warren Ave., Detroit 24
Simson, Clyde B.....951 E. Lafayette, Detroit
Singer, Floyd W.....13530 Michigan Ave., Dearborn
Sippola, Geo. W.....13603 LaSalle Blvd., Detroit 38
Sisson, John M.....15901 Greenfield Ave., Detroit 27
Sivak, B. J.....24604 Templar, Southfield
Sklar, Manuel.....18400 Schaefer Rd., Detroit
Skully, Edward J.....14000 Linnhurst, Detroit 5
Sladen, Frank J. (L).....Henry Ford Hospital, Detroit 2
Slahetka, Vincent E.....19334 Bretton Dr., Detroit 23
Slaugenhaupt, J. G. (L).....16887 Lawton, Detroit 21
Slaughter, Fred M. (L).....455 E. Adams St., Detroit 26
Slazinski, Leo. W.....7618 Michigan Ave., Detroit 10
Slevin, John G.....10 Witherell St., Detroit 26
Sliwin, Edward P.....13244 W. Warren, Dearborn
Slusky, Jos.....854 Fisher Bldg., Detroit 2
Slutzky, Gilbert.....18614 Warrington, Detroit 21
Sly, Robt. F.....2101 Monroe Blvd., Dearborn 8
Small, Henry.....11507 Hamilton Ave., Detroit 2
Small, John.....2643 E. 7 Mile Rd., Detroit 34
Smathers, Homer M.....14219 W. McNichols, Detroit 35
Smathers, Ward M.....14219 W. McNichols, Detroit 35
Smeck, Arthur R. (L).....1036 Waterman Ave., Detroit 9
Smith, Andrew J.....2950 Puritan, Detroit 38
Smith, Claude A. (L).....7 Adams Lane, Dearborn
Smith, Douglas H.....10151 Michigan, Dearborn 2
Smith, F. Janney (L)..352 Moselle Pl., Grosse Pte. Farms
Smith, Henry L.....16401 Grand River Ave., Detroit 27
Smith, J. Allen.....14140 Puritan Ave., Detroit 27
Smith, Richmond W., Jr...2799 W. Grand Blvd., Detroit 2
Smith, Roger F.....18755 Wilshire Ave., Lathrup Village
Smith, W. Pierce.....Henry Ford Hosp., Detroit 2
Smolenski, John J.....13815 Puritan Ave., Detroit 27
Smyka, Edward J.....6111 Charles St., Detroit 12
Smyka, Stanley M.....15731 Glenwood, Detroit 5
Snedeker, Bernard C.....18800 Woodward Ave., Detroit 3
Snider, Thomas H.....VA Hospital, Dearborn
Snoke, Edwin C.....3418 Norwood, Trenton
Snow, Linwood W.....508 W. Main St., Northville
Snyder, Richard J.....32817 Barkley, Livonia
Sobel, Robt. A.....18980 Wyoming, Detroit 21
Soderberg, Ralph B.....7815 E. Jefferson Ave., Detroit 14
Soifer, Sidney.....Sinai Hospital, Detroit 35
Sokol, Wm. M.....15800 W. McNichols, Detroit 35
Sokolov, Raymond A.....3011 W. Grand Blvd., Detroit 2
Solberg, Lincoln E.....2021 Monroe, Dearborn
Soller, Alex S.....19309 Greenfield, Detroit 35
Solomon, A. B.....9559 Greenfield, Detroit 27
Solomon, Robert J.....1221 Lincoln, Lincoln Park
Somerville, Thos. H.....36475 5 Mile Rd., Livonia
Sonda, Lewis P., Jr.....5132 Allen Rd., Allen Park
Sonda, Lewis P.....1553 Woodward Ave., Detroit 26
Sorock, Milton L.....19467 Livernois, Detroit 21
Sosa, Carlos M. A...10824 Talbot St., Huntington Woods
Speck, Carlos C.....6742 Park Ave., Allen Park
Spector, Maurice J.....12938 E. Jefferson, Detroit 15
Spero, Gerald D. (A)....7330 W. 7 Mile Rd., Detroit 21
Sperry, Frederick L. (A)....490 Arlington, Berkeley, Cal.
Sphire, Raymond D.....4160 John R St., Detroit 1
Spiro, Adolph S.....13240 Harper, Detroit 13
Springborn, Benj. R. (L).....15818 E. Warren Ave., Detroit 24
Sprunk, Carl J.....2900 Oakwood Blvd., Melvindale
Spurrier, Ethelbert.....1553 Woodward Ave., Detroit 26
Squires, Walter M. (R).....1616 S. 28th Ave., St. Petersburg, Fla.
Stalker, Hugh (R).....824 Lakeshore, Detroit 36
Stamell, Benjamin B.....658 Maccabees Bldg., Detroit 2
Stamell, Meyer.....14634 Greenfield St., Detroit 27
Staniszewski, C.....8581 Pinehurst, Detroit 4
Stanton, James M.....1001 Mutual Bldg., Detroit 26
Stapleton, Wm. J., Jr. (L)....201 E. Kirby Ave., Detroit 2

Staricco, Renato.....3725 Fort St., Lincoln Park
Starkman, Morris.....17104 Hoover, Detroit 5
Starrs, Thos. C. (L)....509 Fox Theatre Bldg., Detroit 1
Staryk, Steven E.....1010 N. Oxford Rd., Detroit 36
Statzer, Darrell E.....955 Fisher Bldg., Detroit 2
Staub, Howard P.....37625 Michigan Ave., Wayne
Staudt, Louis W.....1201 Pilgrim, Birmingham
Stearns, Alexander B.....1116 Maccabees Bldg., Detroit 2
Stebbins, Chas. E.....664 Fisher Bldg., Detroit 2
Steel, William B.....6958 Town Lane, Dearborn
Steepe, Chas. A. D.....20861 Mack, Grosse Pte. Woods
Stefani, Andrew E.....1701 N. Renaud, Detroit 36
Stefani, Ernest L.....18600 Birchcrest, Detroit 21
Stefani, Raymond T.....13526 Stoepel, Detroit 38
Stein, Albert H.....19334 San Juan Dr., Detroit 21
Stein, Emory.....13115 Woodward, Detroit 3
Stein, Harvey S.....19075 Middlebelt Rd., Livonia
Stein, Saul C.....23105 Van Dyke, Van Dyke
Steinbach, A. L.....320 Merriweather Rd., Grosse Pte. 36
Steinberger, E. J. (L).....6402 W. Fort, Detroit 9
Steiner, Fredk. B.....7675 Ridge Rd., Plymouth
Steiner, Gabriel (L).....10 Peterboro St., Detroit 1
Steiner, Louis J.....12636 Chelsea Ave., Detroit 13
Steiner, S. D.....3044 W. Grand Blvd., Detroit 2
Steinhardt, Milton J.....10720 W. 7 Mile Rd., Detroit 21
Stellhorn, Chester E.....12900 W. 7 Mile Rd., Detroit 35
Stellhorn, Mary C. (A).....16616 Mack Ave., Detroit 24
Stempel, Edward M.....18324 Fairfield Ave., Detroit 21
Sterba, Richard F.....1130 Parker Ave., Detroit 14
Stern, Edward A.....12710 Dexter Blvd., Detroit 38
Stern, Joseph W.....17563 Greenfield Rd., Detroit 35
Stern, Julian.....15121 W. McNichols Rd., Detroit 35
Stern, Leonard H.....19200 Aften Rd., Detroit 3
Stern, Louis D. (L).....1553 Woodward Ave., Detroit 26
Stern, Sheldon D.....802 Mutual Bldg., Detroit 26
Sternhill, Vernon.....1800 Tuxedo, Detroit 6
Stevens, Chas. H.....Med. Concourse Northland Center, Southfield
Stevenson, Chas. S.....19545 Park Lane, Grosse Ile
Stevenson, Lee B.....Henry Ford Hosp., Detroit 2
Stewart, Lula B.....8633 Dexter Blvd., Detroit 6
Stewart, Maitland N., Jr.....10 Peterboro St., Detroit 1
Stewart, Robert M.....15357 Farmington Rd.,, Livonia
Stewart, Marjorie (A).....581 Golfcrest, Dearborn
Stiefel, Danl. M.....1553 Woodward Ave., Detroit 26
Stillwater, Karl.....18221 Pennington, Detroit 21
Stirling, A. M. (R).....1399 Torrey Rd., Detroit 36
Stith, Dwight E.....505 Owen St., Detroit 2
Stobbe, Godfrey D.....Grace Hospital, Detroit 1
Stock, Thomas B.....19610 Middlesex, Southfield
Stocker, Lawrence L.....7330 W. 7 Mile Rd., Detroit 21
Stocker, Marvin L.....16401 Grand River, Detroit
Stockwell, Benj. W.....3919 John R St., Detroit 1
Stokfisz, Thaddeus.....7012 Michigan, Detroit 10
Stoller, Raymond.....25210 Grand River Ave., Detroit 40
Stone, David Q.....3001 Miller Rd., Dearborn
Stone, Sidney L.....14620 E. 7 Mile Rd., Detroit 5
Straith, Richard E.....2605 W. Grand Blvd., Detroit 8
Strand, Martin E.....22400 Cherry Hill, W. Dearborn
Strauss, Ernest G.....1326 St. Antoine, Detroit 26
Stricker, Henry D.....5624 W. Fort St., Detroit 9
Strickroot, Fred L.....3800 Bishop Rd., Detroit 24
Stronski, G. E.....9901 Whittier, Detroit 24
Stryker, Joan C.....21604 E. River Rd., Grosse Ile
Stryker, Walter A.....P.O. Box 31, Wyandotte
Stubbs, Clayton T.....126 S. Gratiot, Mt. Clemens
Subrin, Mayer.....18048 Woodingham, Detroit 21
Suen,, Irene T. S.....3675 E. Outer Dr., Detroit 34
Sugar, David I.....18104 Oak Drive, Detroit 21
Sugar, H. Saul.....18140 San Juan Dr., Detroit 21
Sugarman, Marcus H.....15201 W. McNichols, Detroit 35
Sullivan, Hugh A.....1553 Woodward Ave., Detroit 26
Sultzman, L. Carl.....1438 Iroquois, Detroit 14
Summers, Wm. A.....1553 Woodward Ave., Detroit 26
Summers, Wm. S. (L).....402 N. Palmway, Lake Worth, Fla.
Sutherland, Jacob M. (L)....716 Pallister Ave., Detroit 2
Suwinski, Raymond H.....9801 Conant St., Hamtramck 2
Swan, Donald C.....651 Fisher Bldg., Detroit 2
Swanson, Carl W.....936 Alter Rd., Detroit 15
Swanson, Raymond E. (A).....2753 Bailey, Dearborn
Swanson, Robt. G.....17800 E. 8 Mile Rd., Detroit 36
Swartz, Fred G., Jr.....1329 D. Whitney Bldg., Detroit 26
Sweeny, Donald N., Jr.....1010 Antietam Rd., Detroit 7
Swihart, John J.....505 D. Whitney Bldg., Detroit 26
Switzer, Bertrand C. (R).....12246 Ilene, Detroit
Syphax, Charles S.....1819 E. Davison, Detroit 3
Szabunia, Sigmund C.....19600 Van Dyke, Detroit 34
Szappanyos, G. G.....Providence Hosp., Detroit 8
Szilagyi, D. Emerick.....Henry Ford Hosp., Detroit 2
Szladek, Frank J.....4045 W. Jefferson Ave., Ecorse 29
Szmigiel, Alex J.....20060 Kelly, East Detroit
Taber, Rodman E.....Henry Ford Hosp., Detroit 2
Tactac, Albert J.....15244 Middlebelt, Livonia
Talbot, Frank G.....1365 Cass, Detroit 26
Tallant, Edward J.....18041 Greenfield, Detroit 35
Talley, Robt. W.....Henry Ford Hosp., Detroit 2
Talmers, Fredk. N.....VA Hospital, Dearborn
Tamblyn, E. J. (L).....737 Marlborough, Detroit 15
Tanay, Emanuel.....17007 Kercheval, Grosse Pointe 30
Tanner, Natalia M.....8035 Twelfth St., Detroit 6
Tapert, Julius C.....888 Chalmers Ave., Detroit 15
Tarpinian, Dick A.....1048 D. Whitney Bldg., Detroit 26
Tarpinian, Harry.....10955 Farmington Rd., Livonia
Tasker, Helen E.....76 W. Adams Ave., Detroit 26
Tassie, Ralph N. (L).....15000 Gratiot Ave., Detroit 5
Tatelis, Gabriel A.....1011 E. Grand Blvd., Detroit 7
Tatelman, Maurice.....5440 Cass Ave., Detroit 2
Taurence, Wm. H.....1860 Ford Ave., Wyandotte
Taylor, Ivan B.....1421 Anita Ave., Grosse Pointe 36
Taylor, Nelson M.....215 Dean Lane, Grosse Pte. Park 36
Taylor, Richard A.....28 W. Adams St., Detroit 26
Taylor, Wm. V.....17200 E. Warren, Detroit 24
Tazzioli, Henry A.....21970 Moross Rd., Detroit 36
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Teitelbaum, Myer.....18510 Meyers Rd., Detroit 35
Tenaglia, Thos. A.....3180 Fort St., Lincoln Park
Tenerowicz, R. G. (L).....2925 Lehman Ave., Detroit 12
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Thomas, Alfred E.....73 E. Palmer, Detroit 2
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Thomson, Danl. C.....2966 Biddle Ave., Wyandotte
Thornell, Harold E.....7407 Twelfth St., Detroit 6
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Thosteson, G. C.....1139 D. Whitney Bldg., Detroit 26
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Thumim, Sadie.....15306 Joy Rd., Detroit 28
Timma, Richard J...16401 Grand River Ave., Detroit 27
Ting, Yoeh Ming.....16024 Stratford Dr., Southfield
Tkaczuk, Dmytro.....10345 Joseph Campau, Detroit 12
Toal, Robert E.....20953 Grand River, Detroit 19
Tobin, John S.....13400 W. Outer Dr., Detroit 28
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Vaitkevicius V.....Henry Ford Hosp., Detroit 2
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Van Arsdale, Wm. L. (A).....APO 301 S DA Mission, San Francisco, Calif.
Van Becelaere, L. A.....1860 Ford Ave., Wyandotte
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Weissman, Frederick.....13345 W. McNichols, Detroit
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Weller, Chas. N.....730 Watervale Rd., Arcadia
Wells, Herschel J.....Wayne Co. Gen. Hosp., Eloise
Wells, Martha L.....760 Fisher Bldg., Detroit 2
Weltman, Carl G. (A).....RR 2, Snead Island, Palmetto, Fla.
Wendt, Vernon E.....Detroit Receiving Hosp., Detroit 26
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Weyher, Russell F.....5383 Oakman Blvd., Detroit 4
Whalen, Neil J.....1553 Woodward Ave., Detroit 26
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Wheatley, Charles E.....4465 Charles, Dearborn
Wheeler, Stewart C.....18901 W. McNichols Rd., Detroit 19
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Whitehead, Leston S.....1553 Woodward Ave., Detroit 26
Whitehead, Walter K...1553 Woodward Ave., Detroit 26
Whitehouse, Fred W.....2799 W. Grand Blvd., Detroit 2
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Whitelock, Edward H.....1809 Oak St., Wyandotte
Whitman, James E.....3137 E. 7 Mile Rd., Detroit 34

Whitney, Elmer L. (L)..2 Kenberton Rd., Pleasant Ridge
Whitney, Rex E.....5525 W. Chicago Ave., Detroit 4
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Whittaker, Alfred H.....17000 E. Jefferson Ave., Grosse Pointe 30
Wiechowski, Henry E.....10345 Jos. Campau, Detroit 12
Wiener, Israel.....13011 W. McNichols Rd., Detroit 35
Wiener, Morton J.....150 Livernois, Ferndale 20
Wietersen, Fred K.....18700 Meyers Rd., Detroit 35
Wight, Fred B...27225 Little Mack Ave., St. Clair Shores
Wikiera, Edward S.....15020 Michigan Ave., Dearborn
Wilcox, Leslie F. (A).....505 Middlesex Rd., Grosse Pointe Park
Wilhelm, Rudolf E.....23100 Cherry Hill, Dearborn
Wilhelm, Seymour K.....13011 W. McNichols, Detroit 35
Willard, Rodney E.....22231 W. Outer Drive, Dearborn
Williams, Clarence J.....18633 Mack Ave., Detroit 36
Williams, Delford G.....5050 Joy Road, Detroit
Williams, Earl R.....4465 Charles, Dearborn
Williams, Eugene W.....15326 Michigan, Dearborn
Williams, John H.....18633 Mack Ave., Detroit 36
Willoughby, Wm. A.....974 Fisher Bldg., Detroit 2
Wilner, Freeman M.....15001 W. 8 Mile Rd., Detroit 35
Wilner, Irvin A.....17701 McNichols Rd., Detroit 35
Wilson, Andrew G.....19203 Grand River Ave., Detroit 23
Wilson, Gerald A. (L).....771 Fisher Bldg., Detroit 2
Wilson, Gerald S.....3011 W. Grand Blvd., Detroit 2
Wilson, Ian D.....19203 Grand River, Detroit 23
Wilson, Merton C.....15439 Harper Ave., Detroit 24
Wilson, Paul H.....987 E. Jefferson Ave., Detroit 7
Winnick, Lawrence C.....13340 W. 7 Mile Rd., Detroit 35
Winton, Geo. J.....1150 Griswold St., Detroit 26
Wise, Robt. K.....15801 W. McNichols Rd., Detroit 35
Wishropp, Edward A.....20250 Mack, Grosse Pointe 36
Wisniewski, E. M.....950 E. Maple, Birmingham
Withey, Grant J.....1116 Maccabees Bldg., Detroit 2
Wittenberg, Arthur A...7101 W. Chicago Blvd., Detroit 4
Wittenberg, Samson S.....18718 Woodward, Detroit 3
Wittenberg, Sydney S.....4400 Livernois Ave., Detroit 10
Witter, Jos. A.....344 Glendale Ave., Highland Park 3
Witus, Morris.....18984 Livernois, Detroit 21
Wolfe, John N.....432 E. Hancock, Detroit 1
Wolfe, Max O.....7260 Gen. Motors Bldg., Detroit 2
Wolfson, Wm. Q.....130 Waverly, Highland Park
Wollank, Helen W.....15439 Harper, Detroit 24
Wollenberg, Robt. A. C. (L)..18675 Parkside, Detroit 21
Wolter, James G.....Mt. Carmel Mercy Hosp., Detroit 35
Womack, Melisande.....12815 Linwood, Detroit 38
Wood, Alfred L.....23100 Cherry Hill, Dearborn
Wood, Douglas J.....2860 Clark Ave., Detroit 10
Wood, Geo. P.....8830 W. McNichols, Detroit 21
Wood, Kenneth A.....3919 John R St., Detroit 1
Wood, Wilford C.....3011 W. Grand Blvd., Detroit 2
Woodbury, Ralph F.....15850 E. Warren, Detroit 24
Woodley, Bernard J.....3536 W. Jefferson, Ecorse
Woods, Joseph J.....18255 W. McNichols, Detroit
Woolfenden, Jos. B.....1215 3 Mile Dr., Grosse Pte. Park
Worrell, Calier H.....20250 Mack, Grosse Pte. Woods
Worzniak, Jos. J.....2312 Biddle Ave., Wyandotte
Wreggit, Winston R.....17 Colorado Ave., Highland Park 3
Wright, Charles H.....50 Westminster, Detroit 2
Wruble, Jos.....411 Selden Ave., Detroit 1
Wunsch, Richard E.....497 Rivard Blvd., Grosse Pte. 30
Wyatt, Rudolph A.....2785 S. Fort St., Detroit 17
Wybranowski, Jan.....17644 W. Warren, Detroit 28
Wylie, John H.....Henry Ford Hosp., Detroit 2
Yarrows, Morton I.....455 Medbury St., Detroit 2
Yates, Arthur J. W...16355 E. Jefferson, Grosse Pte. Park
Yesayian, H. G.....609 Kales Bldg., Detroit 26
Yetzer, Wm. J.....20233 Ann Arbor Tr., Dearborn
Yoder, Robt. R.....20189 Whipple, Northville
Yott, Wm. J.....854 Lakeshore Rd., Detroit 36
Young, David J.....19820 Plymouth Rd., Detroit 28
Young, Donald A...14807 W. McNichols Rd., Detroit 35
Young, Donald C.....43875 9 Mile Rd., Northville
Young, Irving I.....32280 Shrewsbury, Farmington
Young, M. O.....8445 E. Jefferson, Detroit 14
Young, Richard D.....18000 Jas. Couzens Hwy., Detroit 35
Young, Viola M. (L).....10 Peterboro St., Detroit 1
Young, Watson A.....43691 Expressway, Belleville
Youngstrom, Clarence S.....8004 Lochdale, Dearborn
Zabinski, Edward J.....585 Ballantyne Rd., Detroit 36
Zadeh, A. T.....27489 W. 6 Mile Rd., Livonia
Zadurowycz, Anton.....3347 Merrill, Royal Oak
Zager, Bernard S.....25321 Fenkell Ave., Detroit 39
Zako, Louis.....9845 Reeck Rd., Allen Park
Zane, Alan Irving.....Receiving Hospital, Detroit
Zavell, Paul M.....1932 Broadstone, Grosse Pte. Woods
Zawacki, Sigmund G.....22214 Ford Rd., Dearborn
Zawadzki, Edward S.....14961 Piedmont Ave., Detroit 23
Zbikowski, Jos.....Wayne Co. Gen. Hosp., Eloise
Zbikowski, Z. T.....33563 5 Mile Rd., Livonia
Zbudowski, Myron R.....10040 Jos. Campau Ave., Detroit 12
Zelenock, Michael N.....2300 Oak, Wyandotte
Zemaitis, Petras.....3835 Biddle St., Wayne
Zemens, Jos. L.....14936 Eastburn, Detroit 5
Ziegler, Robt. F.....Henry Ford Hosp., Detroit 2
Zinn, Geo. H.....1553 Woodward Ave., Detroit 26
Zolliker, Margaret Z.....21327 Harper Ave., St. Clair Shores
Zubroff, L. S.....752 Fisher Bldg., Detroit 2
Zuelzer, Wolf W.....5224 St. Antoine St., Detroit 2
Zukowski, Henry J.....72 N. Deeplands, Detroit 36
Zukowski, Sigmund A.....6626 Van Dyke Ave., Detroit 13
Zwirkoski, T. S.....13244 W. Warren, Dearborn
Zylik, Michael K.....St. Joseph Mercy Hosp., Detroit 11

WEXFORD-MISSAUKEE COUNTY MEDICAL SOCIETY (226)

Anderson, Robert A.....440 E. Chapin, Cadillac
Bentley, M. D.....120 E. Cass, Cadillac
Cannon, John P.....710 Sunset Lane, Cadillac
Cardinal, Thos. H.....212 S. Simons, Cadillac
Daugharty, Robt. V.....107 N. Mitchell, Cadillac
Inman, John C.....Lake City
Mills, Georgia.....Lake City
Moon, Wm. W.....826 Oak St., Cadillac
Moore, G. P.....107½ N. Mitchell, Cadillac
Norton, R. C.....706 Lincoln St., Cadillac
Pierce, Robert E.....1430 Sunnyside Dr., Cadillac
Posthuma, Millard.....124 E. Cass St., Cadillac
Richmond, Thomas F.....1687 N. Lake Mitchell, Cadillac
Seger, Dean W.....Lake City
Smith, W. J.....208 E. Harris St., Cadillac
Youngman, Douglas C.....Marion

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de Kruif, Paul, Ph.D.....Wake Robin, Holland
Johnson, Donald E.....211 E. Court St., Flint 3
Upjohn, Lawrence N.....301 Henrietta St., Kalamazoo

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